
Section 22 Connecticut

Production of a Landcover Map for the Upper Thames River Basin

April 1986



**US Army Corps
of Engineers**
New England Division

Production of a Landcover Map For The Upper Thames River Basin From Thematic Mapper Data

Mark O. Johnson

U.S.Army Construction Engineering Research Laboratory (CERL)
P.O.Box 4005, Champaign, IL 61820
(217) 373-6735 or (217) 352-6511 ext449

ABSTRACT

This report provides documentation of the data and procedures used to produce a landcover map of the Upper Thames River Basin in Northeastern Connecticut from Thematic Mapper and other data using the Geographic Resources Analysis Support System (GRASS).

Contents

Background & Acknowledgements

A. GRASS: Short Explaination

B. Data

C. Georeference Procedure

D. Image Classification

E. Filtering Process

F. Table: Location of Training Sites

G. Histograms of Training Sites

H. Procedures for Subsetting Data

Appendix A : Statistical Tables Based on Township

Appendix B : Additional Map Layer Information

Appendix C : UTM Georeferencing Points

Appendix D : Histogram Data

Appendix E : Landcover Quad Maps

BACKGROUND

The State of Connecticut identified the need for current landuse/landcover maps of the Upper Thames River Basin with particular interest in identifying potential areas for recreational sites. However, traditional landuse mapping products are expensive and are limited by the date and season of the original aerial photography and the scale of the final product. To be of maximum use the data should be in digital form, which can be integrated into a geographic information system, where it can be used in conjunction with other data. One method of avoiding these limitations is to generate landuse/landcover maps by interpreting satellite imagery. Some of the advantages include: 1) Original data in digital form, thus avoiding the cost of converting to digital form; 2) Repetative coverage, allowing for season to season and year to year comparisons; 3) Newer imagery is available at higher resolution (25 meter pixels) for more detailed analysis.

This need was expressed to the Planning section of the New England Division of the Corps of Engineers with support for the effort coming under Section 22 of Public Law 93-251, Planning Assistance to States. The New England Division then contacted researchers at the US Army-Construction Engineering Research Lab.(USA-CERL). Since CERL had developed an extensive set of map and image analysis capabilities as part of the Geographic Resources Analysis Support System, it seemed logical for this Corps research lab to assist the New England District in developing these map products.

ACKNOWLEDGEMENTS

Project guidance was provided by Chuck Freeman and Larry Oliver of NED and Sandy Prisloe, Ken Metsler, and Pam Adams of the Connecticut Department of Environmental Protection. Consultation was also provided by Professor Daniel Civco of the University of Connecticut.

A. GRASS

GRASS is an interactive geographic information/image processing system which can be run from either menu selections or user commands. User inputs include the integration of new data - through keyboard, screen pointing device, floppy disk or computer tape - and/or the selection of appropriate elements from existing data files. Outputs consist of statistical tables, text files and/or maps, which can be displayed on a color monitor or an ink jet color printer.

Using this system, data files can be developed for large or small geographic areas at any scale desired, within the limits of the original source documents and the storage capacity of the hardware. Analysis and display operations can be performed for an entire geographic region, or for any user defined area within this region. For more information see the document "Development and Applications of GRASS: The Geographical Resources Analysis Support System" or contact the above address.

B. DATA

The majority of the data was obtained from the Connecticut Dept. of Environmental Protection's Natural Resources Center. LANDSAT data was obtained through EOSAT. Also obtained was a copy of the USGS 1:250,000 DLG landuse/landcover data for comparison purposes. The results were very pleasing. Looking at sample areas revealed a high amount of agreement between the classified image landcover map and the polygons of the DLG data. In most instances of disagreement it was evident that change had occurred as areas of the newer image map spread in directions out from the older DLG polygons. For a sample color map contact the address above.

Image Date: Sept. 1984

Satellite: LANDSAT-5

Path/Row: 12/31

Bands Used: 1,3,5 (bands 2 & 4 not used due to banding
which could have degraded the classification)

Comments: Since the area of interest spanned two TM
quadrants(1 & 3), it was necessary to combine the
quadrants to make georeferencing more accurate.

Additional Data Layers: -Thames River Watershed Boundary
-Township Boundaries(within watershed)
-County Boundaries(within watershed)
-State Owned Lands(forests,parks,..(within watershed))
For additional information about these supplemental
data layers see Appendix B.

C. GEOREFERENCE PROCEDURE

Image referencing was performed by graphically associating UTM points from hard copy maps(1:24000 USGS quads) and points on the extracted image with the program UTM. See Appendix C for a list of the UTM coordinates that were entered and their associated image points. Note that some points are marked "UNUSED?", meaning although the point was maintained, it was not used to create the equations to transform the image into a UTM projection(usually due to excessive error). Also note that because the area of interest spanned two UTM projections (zones 18 & 19) and the fact that GRASS maintains one projection per database it was necessary to extend zone 18 across approximately two and 1/2 quads to the east since zone 18 covered the majority of the area. The resulting image window is:

North: 4680000.00

South: 4570000.00

West : 710000.00

East : 770000.00

or

Rows : 1800 (0-1799)

Columns: 1200 (0-1199)

Grid Cell Resolution: 50 meters square (all raster maps
in the database at this same resolution)

D. IMAGE CLASSIFICATION

The procedure used to classify the image was a Supervised Classification system where an area on the image, which is thought to be a single cover type, is graphically outlined and the spectral properties (signature) within that polygon are then saved as a signature file. This is done for each desired cover type. Then the signature files are used in a classification program which goes through the data and assigns each pixel a value based on the signature files. The result is a new cellfile with categories representing the signatures specified.

E. FILTERING PROCESSS

The original request was for a filtered version of the landcover map to smooth out the noisy appearance of the woodland areas. So a 3x3 mode filter was applied to the map. This process involves determining the most frequently occurring pixel value in a 3x3 pixel area and assigning the center pixel that value:

Original Data			Filtered Data		
5	5	3			
2	2	5	5		
5	4	2			

But this causes many thin linear features (particularly roads) to either appear mottled or disappear altogether. For instance, in the above figure, value 2 could represent a road in the original data, but because 5 is the dominant value of the neighborhood the center pixel is changed to 5 in the filtered data. After consultation with Sandy Prisloe it was decided to use parts of the unfiltered landcover map to supplement the lost features. Namely the copying of Commercial-Industrial data, which represented the majority of the roads, onto the filtered landcover map. Now, even if all the values in the area have been changed to 5, the essence of the road (value 2) will be present:

Filtered Data			Restored Data		
5	5	5	5	5	5
5	5	5	2	2	5
5	5	5	5	5	2

F. LOCATION OF TRAINING SITES

Class Names	Approx.UTM		Band1		Band2		Band3	
	North	East	mean	std	mean	std	mean	std
Barren Land	4601500	735000	125.7	8.6	65.0	18.8	129.0	24.0
Residential	4604800	728700	114.0	8.6	48.8	4.0	86.0	7.0
Comm-Indust	4621500	731500	129.0	6.8	57.8	7.1	81.2	12.2
Agriculture	4613500	737500	109.2	2.8	38.9	2.2	95.6	6.3
Deciduous	4646500	722500	103.8	1.4	38.8	0.9	79.2	3.0
Coniferous	4605800	267000	101.1	1.8	32.6	0.9	52.4	8.4
Mixed Forest	4650500	720000	104.8	1.4	33.8	0.9	72.8	5.7
Water	4606500	286700	102.2	1.5	30.8	1.0	8.5	1.4
F. Wetlands	4645000	719500	104.1	1.6	33.7	0.8	60.9	5.0
Unf. Wetlands	4616500	728600	107.3	2.1	36.7	2.2	44.7	14.1

G. HISTOGRAMS OF TRAINING SITES

See Appendix D, which lists the information for each training area used in the classification process.

H. PROCEDURES FOR SUBSETTING DATA

Data subsetting was performed by creating temporary windows for each quad in the area of interest and making a subcopy of the landcover map within each quad window. This was necessary only to satisfy the requirement that digital copies of the map be subsetted by quad. After copying the quad-cellfiles to tape they were removed. The quad-windows were created by determining the corner UTM coordinates of each quad and rounding the extreme coordinates to make a UTM quad window. For example the Colchester quad has the following UTM corner coordinates:

NW	NE	SW	SE
N 4611240	4611600	4597400	4597700
E 718680	729100	719110	729560

The following window was created as a "quad-window" for the Colchester quad:

FULL DATA BASE			
Top Row Northing: 4660000.00			
QUAD WINDOW			
West Side Easting:	WEST SIDE EASTING: 710000.00	TOP ROW NORTHING: 4611600.00	EAST SIDE EASTING: 729800.00
East Side Easting:	718700.00	Bottom Row Northing: 4597400.00	770000.00
Bottom Row Northing: 4570000.00			

The following is a table of the quads within the window of the full database, their UTM-Quad windows, and the associated row / column boundaries. This information could be used to extract "quad" sized data from the georeferenced band files.

UTM-Quad Boundaries & Row/Column Equivalents						
Quad	North	South	West	East	rows	columns
Hampden	4660000	4652500	710000	717400	0-150	0-148
Monson	4660000	4652900	717000	727800	0-142	140-356
Wales	4660000	4653200	727300	738100	0-136	348-562
Southbridge	4660000	4653600	737650	748500	0-128	553-770
Webster	4660000	4653900	748000	758900	0-122	780-978
Oxford	4660000	4654300	758300	769400	0-114	988-1188
Ellington	4652900	4639000	710000	717400	142-420	0-148
Stafford	4653200	4639200	717400	728200	136-416	148-364
Westford	4653600	4639400	727800	738600	128-412	358-572
Eastford	4653900	4639700	738100	749000	122-406	582-780
Putnam	4654300	4640100	748500	759400	114-398	770-988
Thompson	4654700	4640400	758900	769800	108-392	978-1198
Rockville	4639200	4624500	710000	718500	418-710	0-170
S.Coventry	4639400	4625150	717800	728650	412-697	158-373
Spring Hill	4639700	4625500	728200	739500	406-690	384-590
Hampton	4640300	4625800	738600	749400	394-684	572-788
Danielson	4640400	4626200	749000	759900	392-676	780-998
E.Killingly	4640800	4626500	759400	770400	384-670	988-1208
Marborough	4625500	4610900	710000	719000	690-982	0-180
Columbia	4625500	4611200	718300	729100	690-978	166-382
Willimantic	4625800	4611600	728650	739500	684-968	373-590
Scotland	4626200	4611900	739600	749950	676-962	592-799
Plainfield	4626500	4612250	749400	760400	670-955	788-1008
Oneco	4626900	4612700	759900	770900	662-948	998-1218
Moodus	4611200	4597000	710000	719200	976-1260	0-184
Colchester	4611600	4597400	718700	729800	968-1252	174-392
Fitchville	4611900	4597700	729100	740000	962-1246	382-600
Norwich	4612250	4598500	739500	750400	955-1230	590-808
Jewett City	4612700	4598400	749950	760900	946-1232	799-1018
Voluntown	4613100	4598750	760400	771400	938-1225	1008-1228

Appendix A : Statistical Tables Based on Township

MAP LAYER CATEGORY REPORT			
Layer: landcover	Date: Fri Feb 14 16:38:13		
Instl: conn	Proj: johnson		
Title: Landcover - Supervised Classification			
Window:	North: 4860000.00	East: 7700000.00	
	West: 710000.00	South: 4570000.00	
Mask: township (Andover)			

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind)	459.81	186.00
2	Residential (low to medium density)	2.47	1.00
3	Agricultural lands (cropland,pasture,golf course)	2858.32	1075.00
4	Deciduous forest land	2167.68	877.25
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	4625.71	1872.00
7	Water (Rivers,streams,ponds,...)	195.21	79.00
8	Forested wetlands	5.56	2.25
9	Non-forested wetlands	113.87	46.00
10	Barren lands (all areas with extremely high refl)	77.22	31.25
totals		10303.45	4169.75

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Fri Feb 14 15:26:32

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Ashford)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	1160.13	469.50
2	Residential (low to medium density)	61.78	25.00
3	Agricultural lands (cropland,pasture,golf course	5028.48	2035.00
4	Deciduous forest land	10293.57	4165.75
5	Coniferous forest land	75.98	30.75
6	Mixed forest land	7730.52	3128.50
7	Water (Rivers,streams,ponds,...)	220.54	89.25
8	Forested wetlands	122.93	49.75
9	Non-forested wetlands	588.10	238.00
10	Barren lands (all areas with extremely high refl	387.95	157.00
totals		25669.98	10388.50

+-----+
| MAP LAYER CATEGORY REPORT
+-----+

| Layer: landcover Date: Fri Feb 14 18:33:36
| Instl: conn Proj: johnson
| Title: Landcover - Supervised Classification
+-----+

| Window: North: 4880000.00
| West: 710000.00 East: 770000.00
| South: 4570000.00
+-----+

| Mask: township (Bolton)
+-----+

+-----+

cat#	Name	acres	hectares
0	no data	25.95	10.50
1	High density urban(transportation,commercial,ind)	1292.95	523.25
2	Residential (low to medium density)	26.56	10.75
3	Agricultural lands (cropland,pasture,golf course)	3589.13	1452.50
4	Deciduous forest land	538.88	218.00
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	3418.01	1383.25
7	Water (Rivers,streams,ponds,...)	143.32	58.00
8	Forested wetlands	4.32	1.75
9	Non-forested wetlands	97.60	39.50
10	Barren lands (all areas with extremely high refl)	226.71	91.75
totals		9363.24	3789.25

+-----+

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Tue Feb 18 10:40:05

Inslt: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Bosrah)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	837.05	338.75
2	Residential (low to medium density)	23.47	9.50
3	Agricultural lands (cropland,pasture,golf course	3320.41	1343.75
4	Deciduous forest land	3767.68	1524.75
5	Coniferous forest land	1.24	0.50
6	Mixed forest land	4708.02	1904.50
7	Water (Rivers,streams,ponds,...)	101.31	41.00
8	Forested wetlands	47.57	19.25
9	Non-forested wetlands	105.02	42.50
10	Barren lands (all areas with extremely high refl	157.53	63.75
totals		13067.27	5288.25

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Fri Feb 14 16:18:29
instl: conn Proj: johnson

Title: Landcover - Supervised Classification

Window: North: 4860000.00
West: 710000.00 East: 770000.00
South: 4570000.00

Mask: township (Brooklyn)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	1124.31	455.00
2	Residential (low to medium density)	35.83	14.50
3	Agricultural lands (cropland,pasture,golf course	4324.25	1750.00
4	Deciduous forest land	6957.72	2815.75
5	Coniferous forest land	19.15	7.75
6	Mixed forest land	4895.05	1981.00
7	Water (Rivers,streams,ponds,...)	42.82	17.25
8	Forested wetlands	522.82	211.50
9	Non-forested wetlands	429.95	174.00
10	Barren lands (all areas with extremely high refl	313.20	126.75
totals		18664.70	7553.50

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Tue Feb 18 09:27:13

Instl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Canterbury)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	895.59	281.50
2	Residential (low to medium density)	7.41	3.00
3	Agricultural lands (cropland,pasture,golf course	4691.19	1898.50
4	Deciduous forest land	13922.85	5634.50
5	Coniferous forest land	185.58	77.00
6	Mixed forest land	5375.04	2175.25
7	Water (Rivers,streams,ponds,...)	71.04	28.75
8	Forested wetlands	341.00	138.00
9	Non-forested wetlands	250.81	101.50
10	Barren lands (all areas with extremely high refl	214.36	86.75
totals		25734.85	10414.75

MAP LAYER CATEGORY REPORT			
Layer: landcover	Date: Fri Feb 14 16:10:14		
Instl: conn	Proj: johnson		
Title: Landcover - Supervised Classification			
Window:	North: 4860000.00		
	West: 710000.00	East: 770000.00	
		South: 4570000.00	
Mask: township (Chaplin)			

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	289.11	117.00
2	Residential (low to medium density)	0.82	0.25
3	Agricultural lands (cropland,pasture,golf course	2131.24	862.50
4	Deciduous forest land	5264.47	2130.50
5	Coniferous forest land	24.09	9.75
6	Mixed forest land	4635.60	1876.00
7	Water (Rivers,streams,ponds,...)	7.41	3.00
8	Forested wetlands	77.22	31.25
9	Non-forested wetlands	147.84	59.75
10	Barren lands (all areas with extremely high refl	32.74	13.25
totals		12610.13	5103.25

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Tue Feb 18 12:23:29

Instl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window: North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Chester)

cat#	Name	acres	hectares
0	no data	67.33	27.25
1	High density urban(transportation,commercial,ind	680.14	275.25
2	Residential (low to medium density)	25.95	10.50
3	Agricultural lands (cropland,pasture,golf course	1792.09	725.25
4	Deciduous forest land	384.86	155.75
5	Coniferous forest land	1.24	0.50
6	Mixed forest land	2374.01	960.75
7	Water (Rivers,streams,ponds,...)	267.49	108.25
8	Forested wetlands	2.47	1.00
9	Non-forested wetlands	169.28	68.50
10	Barren lands (all areas with extremely high refl	48.18	19.50
totals		5813.03	2352.50

MAP LAYER CATEGORY REPORT			
Layer: landcover		Date: Tue Feb 18 10:36:12	
Instl: conn		Proj: hensley	
Title: Landcover - Supervised Classification			
Window:	North: 4660000.00		
West: 710000.00	East: 770000.00		
	South: 4570000.00		
Mask: township (Colchester)			

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	2531.54	1024.50
2	Residential (low to medium density)	82.16	33.25
3	Agricultural lands (cropland,pasture,golf course	8838.00	3495.75
4	Deciduous forest land	8395.84	3397.75
5	Coniferous forest land	15.44	6.25
6	Mixed forest land	11031.78	4484.50
7	Water (Rivers,streams,ponds,...)	342.23	138.50
8	Forested wetlands	190.88	77.25
9	Non-forested wetlands	381.15	154.25
10	Barren lands (all areas with extremely high refl	389.80	157.75
totals		31998.83	12949.75

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Fri Feb 14 16:43:44

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Columbia)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	683.23	276.50
2	Residential (low to medium density)	11.12	4.50
3	Agricultural lands (cropland,pasture,golf course	3662.64	1482.25
4	Deciduous forest land	4869.57	1889.75
5	Coniferous forest land	0.62	0.25
6	Mixed forest land	4416.91	1787.50
7	Water (Rivers,streams,ponds,...)	295.28	119.50
8	Forested wetlands	32.74	13.25
9	Non-forested wetlands	221.77	89.75
10	Barren lands (all areas with extremely high refl	98.22	39.75
totals		14092.11	5703.00

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Fri Feb 14 15:55:25

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4670000.00

Mask: township (Coventry)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	1486.31	601.50
2	Residential (low to medium density)	3.71	1.50
3	Agricultural lands (cropland,pasture,golf course	8075.85	3268.25
4	Deciduous forest land	4714.05	1907.75
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	9259.48	3747.25
7	Water (Rivers,streams,ponds,...)	368.80	149.25
8	Forested wetlands	43.24	17.50
9	Non-forested wetlands	206.33	83.50
10	Barren lands (all areas with extremely high refl	146.41	59.25
totals		24304.14	9835.75

+-----+
| MAP LAYER CATEGORY REPORT
+-----+

Layer: landcover Date: Tue Feb 18 13:14:33
Instl: conn Proj: hensley
Title: Landcover - Supervised Classification
+-----+

Window: North: 4660000.00
West: 710000.00 East: 770000.00
South: 4570000.00
+-----+

Mask: township (Deep River)
+-----+

+-----+

cat#	Name	acres	hectares
0	no data	577.80	233.75
1	High density urban(transportation,commercial,ind	820.37	332.00
2	Residential (low to medium density)	33.36	13.50
3	Agricultural lands (cropland,pasture,golf course	1840.90	745.00
4	Deciduous forest land	624.55	252.75
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	2424.87	981.25
7	Water (Rivers,streams,ponds,...)	335.44	135.75
8	Forested wetlands	20.39	8.25
9	Non-forested wetlands	297.14	120.25
10	Barren lands (all areas with extremely high refl	134.05	54.25
totals		7108.45	2876.75

+-----+

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Tue Feb 18 10:56:12
Instl: conn Proj: hensley

Title: Landcover - Supervised Classification

Window: North: 4660000.00
West: 710000.00 East: 770000.00
South: 4570000.00

Mask: township (East Haddam)

cat#	Name	acres	hectares
0	no data	42.01	17.00
1	High density urban(transportation,commercial,ind	1240.44	502.00
2	Residential (low to medium density)	11.74	4.75
3	Agricultural lands (cropland,pasture,golf course	7204.82	2915.75
4	Deciduous forest land	9637.52	3900.25
5	Coniferous forest land	1.85	0.75
6	Mixed forest land	15949.07	6454.50
7	Water (Rivers,streams,ponds,...)	1266.39	512.50
8	Forested wetlands	300.84	121.75
9	Non-forested wetlands	594.89	240.75
10	Barren lands (all areas with extremely high refl	121.08	49.00
totals		36370.65	14719.00

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Tue Feb 18 10:32:08

Instl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window: North: 4860000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (East Hampton)

cat#	Name	acres	hectares
0	no data	107.49	43.50
1	High density urban(transportation,commercial,ind	45.71	18.50
2	Residential (low to medium density)	0.00	0.00
3	Agricultural lands (cropland,pasture,golf course	915.51	370.50
4	Deciduous forest land	589.57	230.50
5	Coniferous forest land	10.50	4.25
6	Mixed forest land	2439.49	987.25
7	Water (Rivers,streams,ponds,...)	0.00	0.00
8	Forested wetlands	62.39	25.25
9	Non-forested wetlands	58.69	23.75
10	Barren lands (all areas with extremely high refl	15.44	6.25
totals		4224.79	1709.75

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Tue Feb 18 12:36:41

Instl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (East Lyme)

cat#	Name	acres	hectares
0	no data	1777.27	719.25
1	High density urban(transportation,commercial,ind	3520.56	1424.75
2	Residential (low to medium density)	248.34	100.50
3	Agricultural lands (cropland,pasture,golf course	5128.56	2075.50
4	Deciduous forest land	3553.92	1438.25
5	Coniferous forest land	8.85	3.50
6	Mixed forest land	8581.12	3555.25
7	Water (Rivers,streams,ponds,...)	747.48	302.50
8	Forested wetlands	3.09	1.25
9	Non-forested wetlands	827.17	334.75
10	Barren lands (all areas with extremely high refl	486.40	188.75
totals		22842.54	9244.25

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Tue Feb 18 15:43:50

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Eastford)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	303.32	122.75
2	Residential (low to medium density)	1.85	0.75
3	Agricultural lands (cropland,pasture,golf course	2404.90	973.25
4	Deciduous forest land	9511.50	3849.25
5	Coniferous forest land	5633.26	2279.75
6	Mixed forest land	208.80	84.50
7	Water (Rivers,streams,ponds,...)	216.21	87.50
8	Forested wetlands	347.18	140.50
9	Non-forested wetlands	142.08	57.50
10	Barren lands (all areas with extremely high refl	72.89	29.50
totals		18841.99	7625.25

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Fri Feb 14 15:08:50

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4680000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Ellington)

cat#	Name	acres	hectares
0	no data	40.15	16.25
1	High density urban(transportation,commercial,ind)	3943.72	1598.00
2	Residential (low to medium density)	135.90	55.00
3	Agricultural lands (cropland,pasture,golf course)	3505.73	1418.75
4	Deciduous forest land	1636.42	662.25
5	Coniferous forest land	1.24	0.50
6	Mixed forest land	2131.86	862.75
7	Water (Rivers,streams,ponds,...)	153.20	62.00
8	Forested wetlands	50.66	20.50
9	Non-forested wetlands	147.02	59.50
10	Barren lands (all areas with extremely high refl)	447.25	181.00
totals		12193.15	4934.50

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Tue Feb 18 13:19:47
Instl: conn Proj: hensley

Title: Landcover - Supervised Classification

Window: North: 4660000.00
West: 710000.00 East: 770000.00
South: 4570000.00

Mask: township (Essex)

cat#	Name	acres	hectares
0	no data	2232.55	903.50
1	High density urban(transportation,commercial,ind	1149.63	465.25
2	Residential (low to medium density)	85.25	34.50
3	Agricultural lands (cropland,pasture,golf course	1559.82	631.25
4	Deciduous forest land	74.13	30.00
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	1195.96	484.00
7	Water (Rivers,streams,ponds,...)	208.80	84.50
8	Forested wetlands	4.94	2.00
9	Non-forested wetlands	1123.07	454.50
10	Barren lands (all areas with extremely high refl	66.10	26.75
totals		7700.25	3116.25

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Tue Feb 18 10:07:47

Instl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window:

North: 4860000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Franklin)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	864.85	350.00
2	Residential (low to medium density)	10.50	4.25
3	Agricultural lands (cropland,pasture,golf course	3908.03	1580.75
4	Deciduous forest land	2883.04	1166.75
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	4521.93	1830.00
7	Water (Rivers,streams,ponds,...)	20.39	8.25
8	Forested wetlands	104.40	42.25
9	Non-forested wetlands	115.52	46.75
10	Barren lands (all areas with extremely high refl	266.87	108.00
totals		12693.53	5137.00

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Tue Feb 18 09:41:52

Instl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window:

North: 4680000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Glastonbury)

cat#	Name	acres	hectares
0	no data	77.84	31.50
1	High density urban(transportation,commercial,ind)	109.34	44.25
2	Residential (low to medium density)	0.00	0.00
3	Agricultural lands (cropland,pasture,golf course)	534.35	216.25
4	Deciduous forest land	447.87	181.25
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	617.75	250.00
7	Water (Rivers,streams,ponds,...)	0.00	0.00
8	Forested wetlands	0.82	0.25
9	Non-forested wetlands	18.53	7.50
10	Barren lands (all areas with extremely high refl)	18.68	6.75
totals		1822.98	737.75

MAP LAYER CATEGORY REPORT			
Layer: landcover	Date: Tue Feb 18 10:22:20	Inst!: conn	Proj: hensley
Title: Landcover - Supervised Classification			
Window:	North: 4660000.00	West: 710000.00	East: 770000.00
			South: 4570000.00
Mask: township (Grinswold)			

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind)	1742.67	705.25
2	Residential (low to medium density)	84.86	34.25
3	Agricultural lands (cropland,pasture,golf course)	4439.15	1798.50
4	Deciduous forest land	9020.39	3650.50
5	Coniferous forest land	214.36	86.75
6	Mixed forest land	5661.06	2291.00
7	Water (Rivers,streams,ponds,...)	1005.70	407.00
8	Forested wetlands	638.14	258.25
9	Non-forested wetlands	701.15	283.75
10	Barren lands (all areas with extremely high refl)	340.38	137.75
totals		23827.85	9643.00

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Tue Feb 18 12:45:52

Instl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window: North: 4680000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Groton)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	6800.88	2871.25
2	Residential (low to medium density)	1282.68	511.00
3	Agricultural lands (cropland,pasture,golf course	3408.89	1378.75
4	Deciduous forest land	3427.28	1387.00
5	Coniferous forest land	5.56	2.25
6	Mixed forest land	4522.55	1830.25
7	Water (Rivers,streams,ponds,...)	733.27	298.75
8	Forested wetlands	17.30	7.00
9	Non-forested wetlands	1594.41	645.25
10	Barren lands (all areas with extremely high refl	611.57	247.50
totals		22182.17	8977.00

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Tue Feb 18 10:51:35

Instl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window:

North: 4880000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Haddam)

cat#	Name	acres	hectares
0	no data	77.84	31.50
1	High density urban(transportation,commercial,ind	226.71	91.75
2	Residential (low to medium density)	5.58	2.25
3	Agricultural lands (cropland,pasture,golf course	645.55	261.25
4	Deciduous forest land	48.95	19.00
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	830.87	336.25
7	Water (Rivers,streams,ponds,...)	255.13	103.25
8	Forested wetlands	11.12	4.50
9	Non-forested wetlands	121.08	49.00
10	Barren lands (all areas with extremely high refl	70.42	28.50
totals		2291.23	927.25

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Fri Feb 14 16:14:21

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Hampton)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	375.59	152.00
2	Residential (low to medium density)	0.00	0.00
3	Agricultural lands (cropland,pasture,golf course	3026.98	1225.00
4	Deciduous forest land	8507.04	3442.75
5	Coniferous forest land	74.13	30.00
6	Mixed forest land	3925.80	1588.75
7	Water (Rivers,streams,ponds,...)	42.82	17.25
8	Forested wetlands	210.65	85.25
9	Non-forested wetlands	308.26	124.75
10	Barren lands (all areas with extremely high refl	75.98	30.75
totals		16547.05	6696.50

MAP LAYER CATEGORY REPORT			
Layer: landcover	Date: Tue Feb 18 09:52:43		
Instl: conn	Proj: hensley		
Title: Landcover - Supervised Classification			
Window:	North: 4660000.00		
West: 710000.00	East: 770000.00		
	South: 4570000.00		
Mask: township (Hebron)			

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	1159.52	469.25
2	Residential (low to medium density)	1.85	0.75
3	Agricultural lands (cropland,pasture,golf course	7392.00	2991.50
4	Deciduous forest land	5645.00	2284.50
5	Coniferous forest land	1.85	0.75
6	Mixed forest land	9640.61	3901.50
7	Water (Rivers,streams,ponds,...)	95.75	38.75
8	Forested wetlands	35.83	14.50
9	Non-forested wetlands	299.61	121.25
10	Barren lands (all areas with extremely high refl	112.43	45.50
totals		24384.45	9868.25

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Fri Feb 14 16:23:18
Instl: conn Proj: johnson

Title: Landcover - Supervised Classification

Window: North: 4660000.00
West: 710000.00 East: 770000.00
South: 4570000.00

Mask: township (Killingly)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	2950.99	1194.25
2	Residential (low to medium density)	189.65	76.75
3	Agricultural lands (cropland,pasture,golf course	4337.84	1755.50
4	Deciduous forest land	11012.01	4458.50
5	Coniferous forest land	389.80	157.75
6	Mixed forest land	10282.45	4161.25
7	Water (Rivers,streams,ponds,...)	624.55	252.75
8	Forested wetlands	1175.58	475.75
9	Non-forested wetlands	721.53	292.00
10	Barren lands (all areas with extremely high refl	476.90	193.00
totals		32161.30	13015.50

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Tue Feb 18 09:58:38

Instl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Lebanon)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	1787.15	723.25
2	Residential (low to medium density)	11.12	4.50
3	Agricultural lands (cropland,pasture,golf course	12984.10	5246.50
4	Deciduous forest land	8643.56	3498.00
5	Coniferous forest land	9.88	4.00
6	Mixed forest land	10780.38	4362.75
7	Water (Rivers,streams,ponds,...)	584.39	236.50
8	Forested wetlands	64.86	26.25
9	Non-forested wetlands	398.60	160.50
10	Barren lands (all areas with extremely high refl	437.98	177.25
totals		35680.00	14439.50

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Tue Feb 18 12:14:42
Instl: conn Proj: hensley

Title: Landcover - Supervised Classification

Window: North: 4680000.00
West: 710000.00 East: 770000.00
South: 4570000.00

Mask: township (Ledyard)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	1682.98	673.00
2	Residential (low to medium density)	48.18	19.50
3	Agricultural lands (cropland,pasture,golf course	3989.43	1614.50
4	Deciduous forest land	11189.92	4528.50
5	Coniferous forest land	88.34	35.75
6	Mixed forest land	6916.33	2799.00
7	Water (Rivers,streams,ponds,...)	753.66	305.00
8	Forested wetlands	329.26	133.25
9	Non-forested wetlands	339.14	137.25
10	Barren lands (all areas with extremely high refl	302.70	122.50
totals		25619.95	10368.25

+-----+
| MAP LAYER CATEGORY REPORT
|
| Layer: landcover Date: Tue Feb 18 10:17:10
| Instl: conn Proj: hensley
| Title: Landcover - Supervised Classification
|
| Window: North: 4660000.00
| West: 710000.00 East: 770000.00
| South: 4570000.00
|
| Mask: township (Lisbon)
+-----+

+-----+

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind)	775.89	314.00
2	Residential (low to medium density)	8.65	3.50
3	Agricultural lands (cropland,pasture,golf course)	2487.29	998.50
4	Deciduous forest land	3408.89	1378.75
5	Coniferous forest land	21.00	8.50
6	Mixed forest land	3280.48	1319.50
7	Water (Rivers,streams,ponds,...)	182.24	73.75
8	Forested wetlands	53.13	21.50
9	Non-forested wetlands	148.88	60.25
10	Barren lands (all areas with extremely high refl)	77.84	31.50
totals		10402.29	4209.75

+-----+

+-----+
| MAP LAYER CATEGORY REPORT
+-----+

Layer: landcover Date: Tue Feb 18 12:31:11
Instl: conn Proj: hensley
Title: Landcover - Supervised Classification
+-----+

Window: North: 4660000.00
West: 710000.00 East: 770000.00
South: 4570000.00
+-----+

Mask: township (Lyme)
+-----+

+-----+

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind)	485.78	188.50
2	Residential (low to medium density)	1.85	0.75
3	Agricultural lands (cropland,pasture,golf course)	3204.89	1297.00
4	Deciduous forest land	4068.03	1645.50
5	Coniferous forest land	1.24	0.50
6	Mixed forest land	11847.83	4794.75
7	Water (Rivers,streams,ponds,...)	887.71	359.25
8	Forested wetlands	124.17	50.25
9	Non-forested wetlands	1304.89	528.00
10	Barren lands (all areas with extremely high refl)	81.54	33.00
totals		21985.72	8897.50

+-----+

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Fri Feb 14 16:29:44

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Manchester)

cat#	Name	acres	hectares
0	no data	40.15	16.25
1	High density urban(transportation,commercial,ind	12.35	5.00
2	Residential (low to medium density)	1.24	0.50
3	Agricultural lands (cropland,pasture,golf course	98.84	40.00
4	Deciduous forest land	0.00	0.00
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	94.52	38.25
7	Water (Rivers,streams,ponds,...)	0.00	0.00
8	Forested wetlands	0.00	0.00
9	Non-forested wetlands	0.00	0.00
10	Barren lands (all areas with extremely high refl	0.00	0.00
totals		247.10	100.00

+-----+
| MAP LAYER CATEGORY REPORT
+-----+

| Layer: landcover Date: Fri Feb 14 16:05:00
| Instl: conn Proj: johnson
| Title: Landcover - Supervised Classification
+-----+

| Window: North: 4660000.00
| West: 710000.00 East: 770000.00
| South: 4570000.00
+-----+

| Mask: township (Mansfield)
+-----+

+-----+

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	3357.47	1358.75
2	Residential (low to medium density)	168.03	68.00
3	Agricultural lands (cropland,pasture,golf course	9655.43	3907.50
4	Deciduous forest land	2187.45	885.25
5	Coniferous forest land	1.24	0.50
6	Mixed forest land	11777.40	4786.25
7	Water (Rivers,streams,ponds,...)	435.51	176.25
8	Forested wetlands	112.43	45.50
9	Non-forested wetlands	887.71	359.25
10	Barren lands (all areas with extremely high refl	592.42	239.75
totals		29175.10	11807.00

+-----+

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Tue Feb 18 09:46:43
Instl: conn Proj: hensley
Title: Landcover - Supervised Classification

Window: North: 4660000.00
West: 710000.00 East: 770000.00
South: 4570000.00

Mask: township (Marlborough)

cat#	Name	acres	hectares
0	no data	111.81	45.25
1	High density urban(transportation,commercial,ind	727.71	294.50
2	Residential (low to medium density)	22.86	9.25
3	Agricultural lands (cropland,pasture,golf course	2675.48	1082.75
4	Deciduous forest land	3108.52	1258.00
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	5209.49	2108.25
7	Water (Rivers,streams,ponds,...)	82.78	33.50
8	Forested wetlands	29.65	12.00
9	Non-forested wetlands	85.25	34.50
10	Barren lands (all areas with extremely high refl	61.78	25.00
totals		12115.31	4903.00

+-----+
| MAP LAYER CATEGORY REPORT
+-----+

| Layer: landcover Date: Tue Feb 18 12:08:56
| Instl: conn Proj: hensley
| Title: Landcover - Supervised Classification
+-----+

| Window: North: 4680000.00
| West: 710000.00 East: 770000.00
| South: 4570000.00
+-----+

| Mask: township (Montville)
+-----+

+-----+

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	3419.86	1384.00
2	Residential (low to medium density)	186.56	75.50
3	Agricultural lands (cropland,pasture,golf course	6021.21	2436.75
4	Deciduous forest land	7845.89	3094.25
5	Coniferous forest land	12.35	5.00
6	Mixed forest land	8838.77	3577.00
7	Water (Rivers,streams,ponds,...)	1252.80	507.00
8	Forested wetlands	39.54	16.00
9	Non-forested wetlands	569.57	230.50
10	Barren lands (all areas with extremely high refl	412.04	168.75
totals		28398.59	11492.75

+-----+

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Tue Feb 18 12:19:14

Instl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (North Stonington)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	1176.20	478.00
2	Residential (low to medium density)	7.41	3.00
3	Agricultural lands (cropland,pasture,golf course	4974.12	2013.00
4	Deciduous forest land	20366.60	8242.25
5	Coniferous forest land	119.84	48.50
6	Mixed forest land	7943.85	3214.75
7	Water (Rivers,streams,ponds,...)	317.52	128.50
8	Forested wetlands	173.59	70.25
9	Non-forested wetlands	269.34	109.00
10	Barren lands (all areas with extremely high refl	319.99	129.50
totals		35668.27	14434.75

+-----+
| MAP LAYER CATEGORY REPORT
+-----+

Layer: landcover Date: Tue Feb 18 10:43:58
Instl: conn Proj: hensley
Title: Landcover - Supervised Classification
+-----+

Window: North: 4660000.00
West: 710000.00 East: 770000.00
South: 4570000.00
+-----+

Mask: township (Norwich)
+-----+

+-----+

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	5164.39	2090.00
2	Residential (low to medium density)	550.42	222.75
3	Agricultural lands (cropland,pasture,golf course	4954.97	2005.25
4	Deciduous forest land	2042.90	826.75
5	Coniferous forest land	3.71	1.50
6	Mixed forest land	4717.14	1909.00
7	Water (Rivers,streams,ponds,...)	437.98	177.25
8	Forested wetlands	38.54	16.00
9	Non-forested wetlands	618.37	250.25
10	Barren lands (all areas with extremely high refl	338.53	137.00
totals		18867.94	7835.75

+-----+

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Tue Feb 18 13:33:53
Instl: conn Proj: hensley
Title: Landcover - Supervised Classification

Window: North: 4660000.00
West: 710000.00 East: 770000.00
South: 4570000.00

Mask: township (Old Lyme)

cat#	Name	acres	hectares
0	no data	9294.87	3761.50
1	High density urban(transportation,commercial,ind	413.27	167.25
2	Residential (low to medium density)	3.71	1.50
3	Agricultural lands (cropland,pasture,golf course	1360.90	550.75
4	Deciduous forest land	227.95	92.25
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	4331.88	1753.00
7	Water (Rivers,streams,ponds,...)	198.92	80.50
8	Forested wetlands	15.44	6.25
9	Non-forested wetlands	758.80	307.00
10	Barren lands (all areas with extremely high refl	24.09	9.75
totals		16629.21	6729.75

+-----+
| MAP LAYER CATEGORY REPORT
+-----+

Layer: landcover Date: Tue Feb 18 15:27:46
Instl: conn Proj: hensley
Title: Landcover - Supervised Classification
+-----+

Window: North: 4660000.00
West: 710000.00 East: 770000.00
South: 4570000.00
+-----+

Mask: township (Old Saybrook)
+-----+

+-----+

cat#	Name	acres	hectares
0	no data	11318.42	4580.50
1	High density urban(transportation,commercial,ind	34.59	14.00
2	Residential (low to medium density)	0.00	0.00
3	Agricultural lands (cropland,pasture,golf course	92.04	37.25
4	Deciduous forest land	0.00	0.00
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	21.62	8.75
7	Water (Rivers,streams,ponds,...)	22.24	9.00
8	Forested wetlands	0.00	0.00
9	Non-forested wetlands	137.14	55.50
10	Barren lands (all areas with extremely high refl	0.00	0.00
totals		11628.05	4705.00

+-----+

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Tue Feb 18 09:31:50
Instl: conn Proj: hensley

Title: Landcover - Supervised Classification

Window: North: 4680000.00
West: 710000.00 East: 770000.00
South: 4570000.00

Mask: township (Plainfield)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban (transportation,commercial,ind)	2549.45	1031.75
2	Residential (low to medium density)	165.58	67.00
3	Agricultural lands (cropland,pasture,golf course)	5489.33	2221.50
4	Deciduous forest land	9835.20	3980.25
5	Coniferous forest land	197.68	80.00
6	Mixed forest land	8202.48	3319.50
7	Water (Rivers,streams,ponds,...)	95.75	38.75
8	Forested wetlands	571.42	231.25
9	Non-forested wetlands	298.37	120.75
10	Barren lands (all areas with extremely high refl)	421.31	170.50
totals		27826.55	11261.25

MAP LAYER CATEGORY REPORT			
Layer: landcover	Date: Fri Feb 14 15:37:51	Instl: conn	Proj: johnson
Title: Landcover - Supervised Classification			
Window:	North: 4660000.00	West: 710000.00	East: 770000.00
		South: 4570000.00	
Mask: township (Pomfret)			

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	606.01	245.25
2	Residential (low to medium density)	1.85	0.75
3	Agricultural lands (cropland,pasture,golf course	6348.00	2589.00
4	Deciduous forest land	11182.51	4525.50
5	Coniferous forest land	22.86	9.25
6	Mixed forest land	7264.74	2940.00
7	Water (Rivers,streams,ponds,...)	53.74	21.75
8	Forested wetlands	193.38	78.25
9	Non-forested wetlands	295.90	119.75
10	Barren lands (all areas with extremely high refl	142.70	57.75
totals		26111.87	10567.25

MAP LAYER CATEGORY REPORT			
Layer: landcover	Date: Tue Feb 18 10:47:34	Instl: conn	Proj: hensley
Title: Landcover - Supervised Classification			
Window:	North: 4660000.00	West: 710000.00	East: 770000.00
		South: 4570000.00	
Mask: township (Preston)			

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	1037.82	420.00
2	Residential (low to medium density)	27.80	11.25
3	Agricultural lands (cropland,pasture,golf course	4810.42	1948.75
4	Deciduous forest land	7806.51	3159.25
5	Coniferous forest land	30.27	12.25
6	Mixed forest land	5768.55	2334.50
7	Water (Rivers,streams,ponds,...)	349.03	141.25
8	Forested wetlands	103.78	42.00
9	Non-forested wetlands	288.49	116.75
10	Barren lands (all areas with extremely high refl	244.83	99.00
totals		20487.29	8283.00

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Fri Feb 14 15:43:11

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Putnam)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	1887.69	683.00
2	Residential (low to medium density)	171.12	69.25
3	Agricultural lands (cropland,pasture,golf course	2742.81	1110.00
4	Deciduous forest land	1937.88	784.25
5	Coniferous forest land	37.06	15.00
6	Mixed forest land	5032.19	2036.50
7	Water (Rivers,streams,ponds,...)	4.94	2.00
8	Forested wetlands	631.98	255.75
9	Non-forested wetlands	392.89	159.00
10	Barren lands (all areas with extremely high refl	300.84	121.75
totals		12939.39	5236.50

MAP LAYER CATEGORY REPORT			
Layer: landcover	Date: Tue Feb 18 11:00:41	Instl: conn	Proj: hensley
Title: Landcover - Supervised Classification			
Window:	North: 4680000.00	West: 7100000.00	East: 7700000.00
		South: 4570000.00	
Mask: township (Salem)			

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	780.84	316.00
2	Residential (low to medium density)	4.94	2.00
3	Agricultural lands (cropland,pasture,golf course	4250.12	1720.00
4	Deciduous forest land	7768.82	3144.00
5	Coniferous forest land	27.18	11.00
6	Mixed forest land	5515.27	2232.00
7	Water (Rivers,streams,ponds,...)	463.31	187.50
8	Forested wetlands	36.45	14.75
9	Non-forested wetlands	170.50	69.00
10	Barren lands (all areas with extremely high refl	155.06	62.75
totals		19172.49	7759.00

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Tue Feb 18 09:19:45

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4880000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Scotland)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	341.00	138.00
2	Residential (low to medium density)	1.24	0.50
3	Agricultural lands (cropland,pasture,golf course	2626.06	1062.75
4	Deciduous forest land	4956.83	2006.00
5	Coniferous forest land	3.09	1.25
6	Mixed forest land	3808.43	1541.25
7	Water (Rivers,streams,ponds,...)	3.09	1.25
8	Forested wetlands	72.89	29.50
9	Non-forested wetlands	95.13	38.50
10	Barren lands (all areas with extremely high refl	143.32	58.00
totals		12051.07	4877.00

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Fri Feb 14 14:29:50

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4880000.00

West: 7100000.00

East: 7700000.00

South: 4570000.00

Mask: township (Sommers)

cat#	Name	acres	hectares
0	no data	50.66	20.50
1	High density urban(transportation,commercial,ind	5449.79	2205.50
2	Residential (low to medium density)	72.28	29.25
3	Agricultural lands (cropland,pasture,golf course	2296.18	929.25
4	Deciduous forest land	178.53	72.25
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	1259.59	509.75
7	Water (Rivers,streams,ponds,...)	15.44	6.25
8	Forested wetlands	1.24	0.50
9	Non-forested wetlands	387.95	157.00
10	Barren lands (all areas with extremely high refl	580.07	234.75
totals		10291.71	4165.00

MAP LAYER CATEGORY REPORT			
Layer: landcover	Date: Tue Feb 18 10:11:54	Instl: conn	Proj: hensley
Title: Landcover - Supervised Classification			
Window:	North: 4660000.00	West: 710000.00	East: 770000.00
		South: 4570000.00	
Mask: township (Sprague)			

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	565.86	229.00
2	Residential (low to medium density)	39.54	16.00
3	Agricultural lands (cropland,pasture,golf course	1788.82	715.75
4	Deciduous forest land	3093.89	1252.00
5	Coniferous forest land	17.30	7.00
6	Mixed forest land	2871.30	1162.00
7	Water (Rivers,streams,ponds,...)	101.93	41.25
8	Forested wetlands	77.84	31.50
9	Non-forested wetlands	166.79	67.50
10	Barren lands (all areas with extremely high refl	169.88	68.75
totals		8872.74	3590.75

MAP LAYER CATEGORY REPORT			
Layer: landcover	Date: Fri Feb 14 14:35:19		
Instl: conn	Proj: johnson		
Title: Landcover - Supervised Classification			
Window:	North: 4880000.00		
	West: 7100000.00	East: 7700000.00	
		South: 4570000.00	
Mask: township (Stafford)			

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	1277.51	517.00
2	Residential (low to medium density)	39.54	16.00
3	Agricultural lands (cropland,pasture,golf course	4853.04	1984.00
4	Deciduous forest land	18843.23	7625.75
5	Coniferous forest land	318.76	129.00
6	Mixed forest land	10721.67	4339.00
7	Water (Rivers,streams,ponds,...)	322.47	130.50
8	Forested wetlands	1010.02	408.75
9	Non-forested wetlands	327.41	132.50
10	Barren lands (all areas with extremely high refl	253.28	102.50
totals		37986.91	15365.00

+-----+
| MAP LAYER CATEGORY REPORT
+-----+

Layer: landcover Date: Tue Feb 18 09:37:20
Instl: conn Proj: hensley
Title: Landcover - Supervised Classification
+-----+

Window: North: 4660000.00
West: 7100000.00 East: 7700000.00
South: 4570000.00
+-----+

Mask: township (Sterling)
+-----+

+-----+

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	285.40	115.50
2	Residential (low to medium density)	2.47	1.00
3	Agricultural lands (cropland,pasture,golf course	1919.97	777.00
4	Deciduous forest land	11254.17	4554.50
5	Coniferous forest land	302.08	122.25
6	Mixed forest land	3580.48	1449.00
7	Water (Rivers,streams,ponds,...)	5.56	2.25
8	Forested wetlands	443.54	179.50
9	Non-forested wetlands	44.48	18.00
10	Barren lands (all areas with extremely high refl	104.40	42.25
totals		17942.55	7261.25

+-----+

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Tue Feb 18 12:49:43

Insl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window:

North: 4860000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Stonington)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	4585.17	1847.50
2	Residential (low to medium density)	410.19	166.00
3	Agricultural lands (cropland,pasture,golf course	6199.12	2508.75
4	Deciduous forest land	4208.11	1703.00
5	Coniferous forest land	6.18	2.50
6	Mixed forest land	7988.13	3232.75
7	Water (Rivers,streams,ponds,...)	561.53	227.25
8	Forested wetlands	53.74	21.75
9	Non-forested wetlands	1224.38	495.50
10	Barren lands (all areas with extremely high refl	404.63	163.75
totals		25621.18	10368.75

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Fri Feb 14 15:01:21

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Thompson)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	1785.92	722.75
2	Residential (low to medium density)	56.83	23.00
3	Agricultural lands (cropland,pasture,golf course	5517.13	2232.75
4	Deciduous forest land	8158.01	3301.50
5	Coniferous forest land	156.29	63.25
6	Mixed forest land	12624.98	5109.25
7	Water (Rivers,streams,ponds,...)	659.14	268.75
8	Forested wetlands	1768.00	715.50
9	Non-forested wetlands	581.30	235.25
10	Barren lands (all areas with extremely high refl	345.32	139.75
totals		31652.89	12809.75

MAP LAYER CATEGORY REPORT			
Layer: landcover	Date: Fri Feb 14 15:15:42	Instl: conn	Proj: johnson
Title: Landcover - Supervised Classification			
Window:	North: 4660000.00	West: 710000.00	East: 770000.00
		South: 4570000.00	
Mask: township (Tolland)			

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	1894.02	766.50
2	Residential (low to medium density)	167.41	67.75
3	Agricultural lands (cropland,pasture,golf course	6735.33	2725.75
4	Deciduous forest land	7687.90	3111.25
5	Coniferous forest land	8.85	3.50
6	Mixed forest land	8063.49	3263.25
7	Water (Rivers,streams,ponds,...)	386.71	156.50
8	Forested wetlands	200.77	81.25
9	Non-forested wetlands	689.41	279.00
10	Barren lands (all areas with extremely high refl	227.33	92.00
	totals	28081.02	10546.75

MAP LAYER CATEGORY REPORT			
Layer: landcover	Date: Fri Feb 14 14:42:09	Instl: conn	Proj: johnson
Title: Landcover - Supervised Classification			
Window:	North: 4660000.00	West: 7100000.00	East: 7700000.00
		South: 4570000.00	
Mask: township (Union)			

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	245.25	99.25
2	Residential (low to medium density)	83.01	33.50
3	Agricultural lands (cropland,pasture,golf course	701.78	284.00
4	Deciduous forest land	10781.21	4355.00
5	Coniferous forest land	1084.77	439.00
8	Mixed forest land	5510.95	2230.25
7	Water (Rivers,streams,ponds,..)	431.19	174.50
8	Forested wetlands	342.85	138.75
9	Non-forested wetlands	176.68	71.50
10	Barren lands (all areas with extremely high refl	77.84	31.50
totals		19395.50	7849.25

MAP LAYER CATEGORY REPORT

Layer: landcover Date: Fri Feb 14 15:48:07

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Vernon)

cat#	Name	acres	hectares
0	no data	38.45	14.75
1	High density urban(transportation,commercial,ind	3155.47	1277.00
2	Residential (low to medium density)	363.85	147.25
3	Agricultural lands (cropland,pasture,golf course	2115.18	856.00
4	Deciduous forest land	4.94	2.00
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	738.83	299.00
7	Water (Rivers,streams,ponds,...)	145.17	58.75
8	Forested wetlands	1.24	0.50
9	Non-forested wetlands	258.22	104.50
10	Barren lands (all areas with extremely high refl	103.78	42.00
totals		6923.12	2801.75

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Tue Feb 18 10:27:13

Instl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window:

North: 4880000.00

West: 7100000.00

East: 7700000.00

South: 4570000.00

Mask: township (Voluntown)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	350.88	142.00
2	Residential (low to medium density)	2.47	1.00
3	Agricultural lands (cropland,pasture,golf course	1562.29	632.25
4	Deciduous forest land	11362.28	4598.25
5	Coniferous forest land	1451.09	587.25
6	Mixed forest land	7947.97	3216.50
7	Water (Rivers,streams,ponds,...)	363.85	147.25
8	Forested wetlands	2130.62	862.25
9	Non-forested wetlands	298.37	120.75
10	Barren lands (all areas with extremely high refl	130.98	53.00
totals		25800.79	10360.50

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Tue Feb 18 12:41:07

Instl: conn

Proj: hensley

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 7100000.00

East: 7700000.00

South: 4570000.00

Mask: township (Waterford)

cat#

Name

acres

hectares

0 no data

0.00 0.00

1 High density urban(transportation,commercial,ind

7236.94 2928.75

2 Residential (low to medium density)

1879.04 679.50

3 Agricultural lands (cropland,pasture,golf course

8087.54 2455.50

4 Deciduous forest land

1594.41 645.25

5 Coniferous forest land

0.00 0.00

6 Mixed forest land

8443.75 2607.75

7 Water (Rivers,streams,ponds,...)

1949.62 789.00

8 Forested wetlands

42.01 17.00

9 Non-forested wetlands

1328.78 537.75

10 Barren lands (all areas with extremely high refl

821.61 332.50

totals

27163.70 10993.00

MAP LAYER CATEGORY REPORT			
Layer: landcover	Date: Tue Feb 18 13:23:48	Instl: conn	Proj: hensley
Title: Landcover - Supervised Classification			
Window:	North: 4660000.00	West: 710000.00	East: 770000.00
			South: 4570000.00
Mask: township (Westbrook)			

cat#	Name	acres	hectares
0	no data	8647.26	3499.50
1	High density urban(transportation,commercial,ind	0.00	0.00
2	Residential (low to medium density)	0.00	0.00
3	Agricultural lands (cropland,pasture,golf course	0.00	0.00
4	Deciduous forest land	0.00	0.00
5	Coniferous forest land	0.00	0.00
6	Mixed forest land	0.00	0.00
7	Water (Rivers,streams,ponds,...)	0.00	0.00
8	Forested wetlands	0.00	0.00
9	Non-forested wetlands	0.00	0.00
10	Barren lands (all areas with extremely high refl	0.00	0.00
totals		8647.26	3499.50

MAP LAYER CATEGORY REPORT

Layer: landcover	Date: Fri Feb 14 15:21:51
Instl: conn	Proj: johnson
Title: Landcover - Supervised Classification	
Window:	North: 4660000.00
West: 710000.00	East: 770000.00
South: 4570000.00	
Mask: township (Willington)	

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind)	893.27	361.50
2	Residential (low to medium density)	72.89	29.50
3	Agricultural lands (cropland,pasture,golf course)	3595.30	1455.00
4	Deciduous forest land	8989.11	3629.75
5	Coniferous forest land	40.15	16.25
6	Mixed forest land	7088.44	2859.75
7	Water (Rivers,streams,ponds,...)	53.74	21.75
8	Forested wetlands	244.63	99.00
9	Non-forested wetlands	142.08	57.50
10	Barren lands (all areas with extremely high refl)	237.83	96.25
totals		21315.46	8626.25

+-----+
| MAP LAYER CATEGORY REPORT
+-----+

Layer: landcover Date: Fri Feb 14 16:47:43
Instl: conn Proj: johnson
Title: Landcover - Supervised Classification
+-----+

Window: North: 4660000.00
West: 710000.00 East: 770000.00
South: 4570000.00
+-----+

Mask: township (Windham)
+-----+

+-----+

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	3491.52	1413.00
2	Residential (low to medium density)	495.44	200.50
3	Agricultural lands (cropland,pasture,golf course	4588.03	1856.75
4	Deciduous forest land	2504.36	1013.50
5	Coniferous forest land	3.71	1.50
6	Mixed forest land	4979.06	2015.00
7	Water (Rivers,streams,ponds,...)	202.82	82.00
8	Forested wetlands	79.69	32.25
9	Non-forested wetlands	934.86	378.25
10	Barren lands (all areas with extremely high refl	687.56	278.25
totals		17968.64	7271.00

+-----+

MAP LAYER CATEGORY REPORT

Layer: landcover

Date: Fri Feb 14 14:48:27

Instl: conn

Proj: johnson

Title: Landcover - Supervised Classification

Window:

North: 4660000.00

West: 710000.00

East: 770000.00

South: 4570000.00

Mask: township (Woodstock)

cat#	Name	acres	hectares
0	no data	0.00	0.00
1	High density urban(transportation,commercial,ind	885.85	358.50
2	Residential (low to medium density)	0.62	0.25
3	Agricultural lands (cropland,pasture,golf course	8901.16	3602.25
4	Deciduous forest land	15850.23	6414.50
5	Coniferous forest land	797.52	322.75
6	Mixed forest land	11084.91	4486.00
7	Water (Rivers,streams,ponds,...)	646.17	261.50
8	Forested wetlands	982.84	397.75
9	Non-forested wetlands	286.87	108.00
10	Barren lands (all areas with extremely high refl	240.30	97.25
totals		39856.46	16048.75

Appendix B : Additional Map Layer Information

Data Layer: conn.cl

Title: Unsupervised Classification (TM 09/84)

Source: Landsat TM Data

Scale: 1:1,000,000

Comments: Created using machine derived signatures

Data Layer: conn.enh

Title: Enhanced Image (5r,3g,1b) (TM 09/84)

Source: Landsat TM Data

Scale: 1:1,000,000

Comments: Image composite of raw landsat data using bands
5(red), 3(green), 1(blue)

Data Layer: county

Title: County Boundaries

Source: Connecticut Watershed Map

Scale: 1:250,000

Comments: county boundary lines derived from township map

Data Layer: landcover

Title: Landcover - Supervised Classification

Source: Landsat TM Data

Scale: 1:1,000,000

Comments: Created by manually determining appropriate training
sites and using these signatures in a classification program.
See sections D and E for more details.

Data Layer: state_lands

Title: Connecticut - State Owned Lands : Thames River

Source: 1:24000 quads reduced to 1:50000.

Prepared by Connecticut DEP.

Digitised by USA-CERL

Scale: 1:50,000 mylar (multiple sheets)

Comments: state lands (forests,parks,...). Some misalignment
occurred due to digitizing multiple sheets. Most
were corrected by hand.

Data Layer: township

Title: Townships

Source: Connecticut Watershed Map

Scale: 1:250,000

Comments: Township boundaries within the area of interest
transferred to mylar and digitised in arc-node format.

Data Layer: watershed

Title: Thames River Watershed

Source: Connecticut Watershed Map

Scale: 1:250,000

Comments: Boundary of Thames River Basin within State of Connecticut
transferred to mylar and digitised by USA-CERL
in arc-node format.

Appendix C : UTM Georeferencing Points

	NORTH	EAST	ROW	COL	UNUSED?
1	4640550	711988	3083	526	x
2	4640723	715175	3064	639	
3	4639562	714070	3111	608	
4	4641460	717719	3025	722	x
5	4634896	711505	3285	543	
6	4635154	716803	3250	725	
7	4638601	716492	3131	696	
8	4635826	710544	3258	506	
9	4628082	725611	3450	1069	
10	4630566	726644	3358	1091	
11	4634746	723601	3229	967	x
12	4630440	721762	3388	922	
13	4620488	725192	3713	1095	x
14	4619385	723887	3759	1054	
15	4617052	729562	3811	1263	
16	4614140	730287	3909	1303	
17	4618138	735847	3741	1476	
18	4615938	740726	3792	1656	
19	4618745	746472	3664	1842	x
20	4615462	749408	3763	1959	
21	4627919	744578	3358	1726	
22	4635173	741105	3121	1569	
23	4631103	752518	3204	1985	
24	4628373	760258	3258	2266	
25	4630256	763899	3173	2380	x
26	4620224	720228	3750	923	
27	4614424	744454	3821	1794	x
28	4621543	765310	3470	2478	
29	4616311	764703	3658	2481	x
30	4622026	758150	3489	2226	
31	4615373	751522	3754	2033	
32	4610604	765839	3841	2551	x
33	4601952	767739	4132	2663	x
34	4612296	757321	3830	2249	
35	4601705	750989	4230	2086	
36	4610900	748595	3925	1956	
37	4602411	740857	4260	1732	
38	4611008	733991	3998	1450	x
39	4600313	733120	4374	1474	
40	4609954	722901	4093	1069	
41	4601250	727955	4368	1290	
42	4609441	713843	4156	759	
43	4597853	715498	4551	874	x
44	5492606	710088	4781	717	x
45	4586808	711745	4953	803	
46	4595425	719344	4616	1020	x
47	4589830	721311	4799	1120	
48	4597135	735366	4470	1569	
49	4585521	737435	4863	1701	
50	4596238	744925	4452	1906	
51	4584859	746914	4837	2033	

52	4596576	752040	4403	2149
53	4587362	755832	4703	2328
54	4660878	723613	2322	828
55	4658881	735538	2329	1251
56	4661353	739784	2221	1386

Appendix D: Histogram Data

n
h
h
JJ oooo hhhh nnnn ssss oooo nnnn
J o o hh h nn n s s o o nn n
J o o h h n n ss ss o o n n
J o o h h n n ss ss o o n n
J o o h h n n s s o o n n
.. oooo n n n n ssss oooo n n
J
J
JJJ

d
d
d
t d i
t d
sss ttttt ddd d ii nnnn
s s t d dd i nn n
ss t d d i n n
ss t d d i n n
s s t t d dd i n n
sss tt ddd d iii n n

M M AAA SSSSS SSSSS 1
MM MM A A S S S S 11
M M M M A A S S 1 1
M M M A A S S 1
M M AAAAAAA SSSSS SSSSS 1
M M A A S S S S 1
M M A A S S S S 1
M M A A S S S S 1
M M A A SSSSS SSSSS 11111

Job: stdin
Date: Wed Feb 26 11:19:37 1986

rwxtwxtwx	63/30	70 Feb 18 09:46 1986	danielson/stat/
rw-t--t--	63/30	67 Feb 18 09:46 1986	danielson/stat/danielson
rwxtwxtwx	63/30	0 Feb 18 09:46 1986	danielson/hist/
rw-t--t--	63/30	567 Feb 18 09:47 1986	danielson/hist/danielson
rwxtwxtwx	63/30	0 Feb 18 12:07 1986	danielson/colr/
rw-tw-tw-	63/30	312 Feb 20 10:15 1986	danielson/colr/danielson
rwxtwxtx	63/30	0 Feb 18 09:45 1986	danielson/pre_def/
rw-t--t--	63/30	202 Feb 18 09:45 1986	danielson/pre_def/window_01
rw-t--t--	63/30	9 Feb 18 09:45 1986	danielson/pre_def/name_01
rwxtwxtx	63/30	0 Feb 18 09:45 1986	danielson/COMBINE/
rw-tw-tw-	63/30	0 Feb 18 09:26 1986	eastford/
rw-tw-tw-	63/30	202 Feb 18 09:24 1986	eastford/WIND
rw-tw-tw-	63/30	0 Feb 18 09:26 1986	eastford/STAT
rwxtwxtwx	63/30	0 Feb 18 09:24 1986	eastford/cell/
rw-t--t--	63/30	61912 Feb 18 09:25 1986	eastford/cell/eastford
rwxtwxtwx	63/30	0 Feb 18 12:07 1986	eastford/cats/
rw-t--t--	63/30	409 Feb 18 12:07 1986	eastford/cats/eastford
rwxtwxtwx	63/30	0 Feb 18 09:24 1986	eastford/cellhd/
rw-t--t--	63/30	217 Feb 18 09:24 1986	eastford/cellhd/eastford
rwxtwxtwx	63/30	0 Feb 18 09:25 1986	eastford/stat/
rw-t--t--	63/30	63 Feb 18 09:25 1986	eastford/stat/eastford
rwxtwxtwx	63/30	0 Feb 18 09:25 1986	eastford/hist/
rw-t--t--	63/30	564 Feb 18 09:25 1986	eastford/hist/eastford
rwxtwxtwx	63/30	0 Feb 18 12:07 1986	eastford/colr/
rw-tw-tw-	63/30	312 Feb 20 10:15 1986	eastford/colr/eastford
rwxtwxtx	63/30	0 Feb 18 09:23 1986	eastford/pre_def/
rw-t--t--	63/30	202 Feb 18 09:23 1986	eastford/pre_def/window_01
rw-t--t--	63/30	8 Feb 18 09:23 1986	eastford/pre_def/name_01
rwxtwxtx	63/30	0 Feb 18 09:24 1986	eastford/COMBINE/
rwxtwxtwx	63/30	0 Feb 24 13:12 1986	ellington/
rw-tw-tw-	63/30	202 Feb 24 13:10 1986	ellington/WIND
rw-tw-tw-	63/30	0 Feb 24 13:12 1986	ellington/STAT
rwxtwxtwx	63/30	0 Feb 24 13:11 1986	ellington/cell/
rw-t--t--	63/30	43368 Feb 24 13:11 1986	ellington/cell/ellington
rwxtwxtwx	63/30	0 Feb 24 13:11 1986	ellington/cats/
rw-t--t--	63/30	409 Feb 24 13:28 1986	ellington/cats/ellington
rwxtwxtwx	63/30	0 Feb 24 13:11 1986	ellington/cellhd/
rw-t--t--	63/30	215 Feb 24 13:11 1986	ellington/cellhd/ellington
rwxtwxtwx	63/30	0 Feb 24 13:11 1986	ellington/stat/
rw-t--t--	63/30	67 Feb 24 13:11 1986	ellington/stat/ellington
rwxtwxtwx	63/30	0 Feb 24 13:11 1986	ellington/hist/
rw-t--t--	63/30	267 Feb 24 13:11 1986	ellington/hist/ellington
rwxtwxtwx	63/30	0 Feb 24 13:11 1986	ellington/colr/
rw-t--t--	63/30	312 Feb 24 13:32 1986	ellington/colr/ellington
rwxtwxtx	63/30	0 Feb 24 13:09 1986	ellington/COMBINE/
rwxtwxtx	63/30	0 Feb 24 13:10 1986	ellington/pre_def/
rw-t--t--	63/30	202 Feb 24 13:10 1986	ellington/pre_def/window_01
rw-t--t--	63/30	9 Feb 24 13:10 1986	ellington/pre_def/name_01
rwxtwxtwx	63/30	0 Feb 18 10:21 1986	fitchville/
rw-tw-tw-	63/30	202 Feb 25 11:03 1986	fitchville/WIND
rw-tw-tw-	63/30	0 Feb 18 10:21 1986	fitchville/STAT
rwxtwxtwx	63/30	0 Feb 18 10:19 1986	fitchville/cell/
rw-t--t--	63/30	61912 Feb 18 10:21 1986	fitchville/cell/fitchville
rwxtwxtwx	63/30	0 Feb 18 12:07 1986	fitchville/cats/
rw-t--t--	63/30	409 Feb 18 12:07 1986	fitchville/cats/fitchville
rwxtwxtwx	63/30	0 Feb 18 10:19 1986	fitchville/cellhd/
rw-t--t--	63/30	218 Feb 18 10:19 1986	fitchville/cellhd/fitchville
rwxtwxtwx	63/30	0 Feb 18 10:21 1986	fitchville/stat/
rw-t--t--	63/30	65 Feb 18 10:21 1986	fitchville/stat/fitchville
rwxtwxtwx	63/30	0 Feb 18 10:21 1986	fitchville/hist/
rw-t--t--	63/30	570 Feb 18 10:21 1986	fitchville/hist/fitchville
rwxtwxtwx	63/30	0 Feb 18 12:07 1986	fitchville/colr/
rw-tw-tw-	63/30	312 Feb 20 10:15 1986	fitchville/colr/fitchville
rwxtwxtx	63/30	0 Feb 18 10:19 1986	fitchville/pre_def/
rw-t--t--	63/30	202 Feb 18 10:19 1986	fitchville/pre_def/window_01
rw-t--t--	63/30	10 Feb 18 10:19 1986	fitchville/pre_def/name_01

rwxtwxrwx	63/30	0 Feb 20 18:48 1986	colchester/
rw-rw-rw-	63/30	202 Feb 18 10:16 1986	colchester/WIND
rw-rw-rw-	63/30	0 Feb 20 18:48 1986	colchester/STAT
rwxtwxrwx	63/30	0 Feb 18 10:16 1986	colchester/cell/
rw-r--r--	63/30	61912 Feb 18 10:17 1986	colchester/cell/colchester
rwxtwxrwx	63/30	0 Feb 18 12:07 1986	colchester/cats/
rw-r--r--	63/30	409 Feb 18 12:07 1986	colchester/cats/colchester
rwxtwxrwx	63/30	0 Feb 18 10:16 1986	colchester/cellhd/
rw-r--r--	63/30	218 Feb 18 10:16 1986	colchester/cellhd/colchester
rwxtwxrwx	63/30	0 Feb 18 10:17 1986	colchester/stat/
rw-r--r--	63/30	63 Feb 18 10:17 1986	colchester/stat/colchester
rwxtwxrwx	63/30	0 Feb 18 10:17 1986	colchester/hist/
rw-r--r--	63/30	570 Feb 18 10:17 1986	colchester/hist/colchester
rwxtwxrwx	63/30	0 Feb 18 12:07 1986	colchester/colr/
rw-rw-rw-	63/30	312 Feb 20 10:14 1986	colchester/colr/colchester
rwxt-xr-x	63/30	0 Feb 18 10:16 1986	colchester/pre_def/
rw-r--r--	63/30	202 Feb 18 10:16 1986	colchester/pre_def/window_01
rw-r--r--	63/30	10 Feb 18 10:16 1986	colchester/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 18 10:16 1986	colchester/COMBINE/
rwxtwxrwx	63/30	0 Feb 18 09:57 1986	columbia/
rw-rw-rw-	63/30	202 Feb 18 09:54 1986	columbia/WIND
rw-rw-rw-	63/30	0 Feb 18 09:57 1986	columbia/STAT
rwxtwxrwx	63/30	0 Feb 18 09:55 1986	columbia/cell/
rw-r--r--	63/30	61776 Feb 18 09:56 1986	columbia/cell/columbia
rwxtwxrwx	63/30	0 Feb 18 12:07 1986	columbia/cats/
rw-r--r--	63/30	409 Feb 18 12:07 1986	columbia/cats/columbia
rwxtwxrwx	63/30	0 Feb 18 09:55 1986	columbia/cellhd/
rw-r--r--	63/30	217 Feb 18 09:55 1986	columbia/cellhd/columbia
rwxtwxrwx	63/30	0 Feb 18 09:56 1986	columbia/stat/
rw-r--r--	63/30	62 Feb 18 09:56 1986	columbia/stat/columbia
rwxtwxrwx	63/30	0 Feb 18 09:56 1986	columbia/hist/
rw-r--r--	63/30	564 Feb 18 09:57 1986	columbia/hist/columbia
rwxtwxrwx	63/30	0 Feb 18 12:07 1986	columbia/colr/
rw-rw-rw-	63/30	312 Feb 20 10:15 1986	columbia/colr/columbia
rwxt-xr-x	63/30	0 Feb 18 09:54 1986	columbia/pre_def/
rw-r--r--	63/30	202 Feb 18 09:54 1986	columbia/pre_def/window_01
rw-r--r--	63/30	8 Feb 18 09:54 1986	columbia/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 18 09:55 1986	columbia/COMBINE/
rwxtwxrwx	63/30	0 Feb 18 09:36 1986	coventry/
rw-rw-rw-	63/30	202 Feb 18 09:34 1986	coventry/WIND
rw-rw-rw-	63/30	0 Feb 18 09:36 1986	coventry/STAT
rwxtwxrwx	63/30	0 Feb 18 09:34 1986	coventry/cell/
rw-r--r--	63/30	61845 Feb 18 09:36 1986	coventry/cell/coventry
rwxtwxrwx	63/30	0 Feb 18 12:07 1986	coventry/cats/
rw-r--r--	63/30	409 Feb 18 12:07 1986	coventry/cats/coventry
rwxtwxrwx	63/30	0 Feb 18 09:34 1986	coventry/cellhd/
rw-r--r--	63/30	217 Feb 18 09:34 1986	coventry/cellhd/coventry
rwxtwxrwx	63/30	0 Feb 18 09:36 1986	coventry/stat/
rw-r--r--	63/30	64 Feb 18 09:36 1986	coventry/stat/coventry
rwxtwxrwx	63/30	0 Feb 18 09:36 1986	coventry/hist/
rw-r--r--	63/30	564 Feb 18 09:36 1986	coventry/hist/coventry
rwxtwxrwx	63/30	0 Feb 18 12:07 1986	coventry/colr/
rw-rw-rw-	63/30	312 Feb 20 10:15 1986	coventry/colr/coventry
rwxt-xr-x	63/30	0 Feb 18 09:34 1986	coventry/pre_def/
rw-r--r--	63/30	202 Feb 18 09:34 1986	coventry/pre_def/window_01
rw-r--r--	63/30	8 Feb 18 09:34 1986	coventry/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 18 09:34 1986	coventry/COMBINE/
rwxtwxrwx	63/30	0 Feb 18 09:47 1986	danielson/
rw-rw-rw-	63/30	202 Feb 18 09:45 1986	danielson/WIND
rw-rw-rw-	63/30	0 Feb 18 09:47 1986	danielson/STAT
rwxtwxrwx	63/30	0 Feb 18 09:45 1986	danielson/cell/
rw-r--r--	63/30	61912 Feb 18 09:46 1986	danielson/cell/danielson
rwxtwxrwx	63/30	0 Feb 18 12:07 1986	danielson/cats/
rw-r--r--	63/30	409 Feb 18 12:07 1986	danielson/cats/danielson
rwxtwxrwx	63/30	0 Feb 18 09:45 1986	danielson/cellhd/
rw-r--r--	63/30	217 Feb 18 09:45 1986	danielson/cellhd/danielson

rwxt-xr-x	63/30	0 Feb 18 10:19 1986	fitchville/COMBINE/
rwxtwxrtwx	63/30	0 Feb 24 13:14 1986	hampden/
rw-rw-rw-	63/30	202 Feb 24 13:13 1986	hampden/WIND
rw-rw-rw-	63/30	0 Feb 24 13:14 1986	hampden/STAT
rwxtwxrtwx	63/30	0 Feb 24 13:14 1986	hampden/cell/
rw-r--r--	63/30	22200 Feb 24 13:14 1986	hampden/cell/hampden
rwxtwxrtwx	63/30	0 Feb 24 13:14 1986	hampden/cats/
rw-r--r--	63/30	409 Feb 24 15:28 1986	hampden/cats/hampden
rwxtwxrtwx	63/30	0 Feb 24 13:14 1986	hampden/cellhd/
rw-r--r--	63/30	213 Feb 24 13:14 1986	hampden/cellhd/hampden
rwxtwxrtwx	63/30	0 Feb 24 13:14 1986	hampden/stat/
rw-r--r--	63/30	59 Feb 24 13:14 1986	hampden/stat/hampden
rwxtwxrtwx	63/30	0 Feb 24 13:14 1986	hampden/hist/
rw-r--r--	63/30	309 Feb 24 13:14 1986	hampden/hist/hampden
rwxtwxrtwx	63/30	0 Feb 24 13:14 1986	hampden/colr/
rw-r--r--	63/30	312 Feb 24 13:32 1986	hampden/colr/hampden
rwxt-xr-x	63/30	0 Feb 24 13:13 1986	hampden/pre_def/
rw-r--r--	63/30	202 Feb 24 13:13 1986	hampden/pre_def/window_01
rw-r--r--	63/30	7 Feb 24 13:13 1986	hampden/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 24 13:13 1986	hampden/COMBINE/
rwxtwxrtwx	63/30	0 Feb 25 15:51 1986	hampton/
rw-rw-rw-	63/30	202 Feb 25 13:53 1986	hampton/WIND
rw-rw-rw-	63/30	0 Feb 25 15:51 1986	hampton/STAT
rwxtwxrtwx	63/30	0 Feb 25 09:28 1986	hampton/cell/
rw-r--r--	63/30	62640 Feb 25 09:28 1986	hampton/cell/hampton
rwxtwxrtwx	63/30	0 Feb 25 09:28 1986	hampton/cats/
rw-rw-rw-	63/30	409 Feb 25 13:03 1986	hampton/cats/hampton
rwxtwxrtwx	63/30	0 Feb 25 09:28 1986	hampton/cellhd/
rw-rw-rw-	63/30	217 Feb 25 13:03 1986	hampton/cellhd/hampton
rwxtwxrtwx	63/30	0 Feb 25 09:28 1986	hampton/stat/
rw-rw-rw-	63/30	65 Feb 25 14:30 1986	hampton/stat/hampton
rwxtwxrtwx	63/30	0 Feb 25 09:28 1986	hampton/hist/
rw-rw-rw-	63/30	74 Feb 25 13:04 1986	hampton/hist/hampton
rwxtwxrtwx	63/30	0 Feb 25 09:28 1986	hampton/colr/
rw-rw-rw-	63/30	312 Feb 25 09:32 1986	hampton/colr/hampton
rwxt-xr-x	63/30	0 Feb 18 09:42 1986	hampton/pre_def/
rw-r--r--	63/30	202 Feb 18 09:41 1986	hampton/pre_def/window_01
rw-r--r--	63/30	7 Feb 18 09:42 1986	hampton/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 18 09:42 1986	hampton/COMBINE/
rwxtwxrtwx	63/30	0 Feb 18 10:27 1986	jewett/
rw-rw-rw-	63/30	202 Feb 18 10:25 1986	jewett/WIND
rw-rw-rw-	63/30	0 Feb 18 10:27 1986	jewett/STAT
rwxtwxrtwx	63/30	0 Feb 18 10:26 1986	jewett/cell/
rw-r--r--	63/30	62634 Feb 18 10:27 1986	jewett/cell/jewett
rwxtwxrtwx	63/30	0 Feb 18 12:07 1986	jewett/cats/
rw-r--r--	63/30	409 Feb 18 12:07 1986	jewett/cats/jewett
rwxtwxrtwx	63/30	0 Feb 18 10:26 1986	jewett/cellhd/
rw-r--r--	63/30	219 Feb 18 10:26 1986	jewett/cellhd/jewett
rwxtwxrtwx	63/30	0 Feb 18 10:27 1986	jewett/stat/
rw-r--r--	63/30	68 Feb 18 10:27 1986	jewett/stat/jewett
rwxtwxrtwx	63/30	0 Feb 18 10:27 1986	jewett/hist/
rw-r--r--	63/30	558 Feb 18 10:27 1986	jewett/hist/jewett
rwxtwxrtwx	63/30	0 Feb 18 12:07 1986	jewett/colr/
rw-rw-rw-	63/30	312 Feb 20 10:15 1986	jewett/colr/jewett
rwxt-xr-x	63/30	0 Feb 18 10:25 1986	jewett/pre_def/
rw-r--r--	63/30	202 Feb 18 10:25 1986	jewett/pre_def/window_01
rw-r--r--	63/30	6 Feb 18 10:25 1986	jewett/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 18 10:25 1986	jewett/COMBINE/
rwxtwxrtwx	63/30	0 Feb 18 09:52 1986	killingly/
rw-rw-rw-	63/30	202 Feb 18 09:50 1986	killingly/WIND
rw-rw-rw-	63/30	0 Feb 18 09:52 1986	killingly/STAT
rwxtwxrtwx	63/30	0 Feb 18 09:51 1986	killingly/cell/
rw-r--r--	63/30	60632 Feb 18 09:52 1986	killingly/cell/killingly
rwxtwxrtwx	63/30	0 Feb 18 12:07 1986	killingly/cats/
rw-r--r--	63/30	409 Feb 18 12:07 1986	killingly/cats/killingly
rwxtwxrtwx	63/30	0 Feb 18 09:51 1986	killingly/cellhd/

rw-r--r-- 63/30 218 Feb 18 09:51 1986 killingly/cellhd/killingly
rwxtwxtrwx 63/30 0 Feb 18 09:52 1986 killingly/stat/
rw-r--r-- 63/30 66 Feb 18 09:52 1986 killingly/stat/killingly
rwxtwxtrwx 63/30 0 Feb 18 09:52 1986 killingly/hist/
rw-r--r-- 63/30 278 Feb 18 09:52 1986 killingly/hist/killingly
rwxtwxtrwx 63/30 0 Feb 18 12:07 1986 killingly/colr/
rw-rw-rw- 63/30 312 Feb 20 10:15 1986 killingly/colr/killingly
rwxt-xr-x 63/30 0 Feb 18 09:50 1986 killingly/pre_def/
rw-r--r-- 63/30 202 Feb 18 09:50 1986 killingly/pre_def/window_01
rw-r--r-- 63/30 9 Feb 18 09:50 1986 killingly/pre_def/name_01
rwxt-xr-x 63/30 0 Feb 18 09:51 1986 killingly/COMBINE/
rwxtwxtrwx 63/30 0 Feb 26 10:51 1986 marborough/
rw-rw-rw- 63/30 202 Feb 24 13:19 1986 marborough/WIND
rw-rw-rw- 63/30 0 Feb 26 10:51 1986 marborough/STAT
rwxtwxtrwx 63/30 0 Feb 24 13:20 1986 marborough/cell/
rw-r--r-- 63/30 52560 Feb 24 13:21 1986 marborough/cell/marborough
rwxtwxtrwx 63/30 0 Feb 24 13:21 1986 marborough/cats/
rw-r--r-- 63/30 409 Feb 24 13:28 1986 marborough/cats/marborough
rwxtwxtrwx 63/30 0 Feb 24 13:20 1986 marborough/cellhd/
rw-r--r-- 63/30 215 Feb 24 13:20 1986 marborough/cellhd/marborough
rwxtwxtrwx 63/30 0 Feb 24 13:21 1986 marborough/stat/
rw-r--r-- 63/30 62 Feb 24 13:21 1986 marborough/stat/marborough
rwxtwxtrwx 63/30 0 Feb 24 13:21 1986 marborough/hist/
rw-r--r-- 63/30 222 Feb 24 13:21 1986 marborough/hist/marborough
rwxtwxtrwx 63/30 0 Feb 24 13:21 1986 marborough/colr/
rw-r--r-- 63/30 312 Feb 24 13:32 1986 marborough/colr/marborough
rwxt-xr-x 63/30 0 Feb 24 13:19 1986 marborough/pre_def/
rw-r--r-- 63/30 202 Feb 24 13:19 1986 marborough/pre_def/window_01
rw-r--r-- 63/30 10 Feb 24 13:19 1986 marborough/pre_def/name_01
rwxt-xr-x 63/30 0 Feb 24 13:19 1986 marborough/COMBINE/
rwxtwxtrwx 63/30 0 Feb 19 13:23 1986 monson/
rw-rw-rw- 63/30 202 Feb 19 10:11 1986 monson/WIND
rw-rw-rw- 63/30 0 Feb 19 13:23 1986 monson/STAT
rwxtwxtrwx 63/30 0 Feb 18 08:31 1986 monson/cell/
rw-r--r-- 63/30 30672 Feb 18 08:32 1986 monson/cell/monson
rwxtwxtrwx 63/30 0 Feb 18 12:07 1986 monson/cats/
rw-r--r-- 63/30 409 Feb 18 12:07 1986 monson/cats/monson
rwxtwxtrwx 63/30 0 Feb 18 08:31 1986 monson/cellhd/
rw-r--r-- 63/30 215 Feb 18 08:31 1986 monson/cellhd/monson
rwxtwxtrwx 63/30 0 Feb 18 08:32 1986 monson/stat/
rw-r--r-- 63/30 62 Feb 18 08:32 1986 monson/stat/monson
rwxtwxtrwx 63/30 0 Feb 18 08:32 1986 monson/hist/
rw-r--r-- 63/30 558 Feb 18 08:32 1986 monson/hist/monson
rwxtwxtrwx 63/30 0 Feb 18 12:07 1986 monson/colr/
rw-rw-rw- 63/30 312 Feb 19 10:42 1986 monson/colr/monson
rwxt-xr-x 63/30 0 Feb 18 08:19 1986 monson/pre_def/
rw-r--r-- 63/30 202 Feb 18 08:19 1986 monson/pre_def/window_01
rwxt-xr-x 63/30 6 Feb 18 08:19 1986 monson/pre_def/name_01
rwxtwxtrwx 63/30 0 Feb 18 08:19 1986 monson/COMBINE/
rw-rw-rw- 63/30 0 Feb 25 09:24 1986 moodus/
rw-rw-rw- 63/30 202 Feb 24 13:24 1986 moodus/WIND
rwxtwxtrwx 63/30 0 Feb 25 09:24 1986 moodus/STAT
rw-r--r-- 63/30 0 Feb 24 13:24 1986 moodus/cell/
rwxtwxtrwx 63/30 52256 Feb 24 13:29 1986 moodus/cell/moodus
rwxtwxtrwx 63/30 0 Feb 24 13:29 1986 moodus/cats/
rw-r--r-- 63/30 409 Feb 24 13:28 1986 moodus/cats/moodus
rwxtwxtrwx 63/30 0 Feb 24 13:24 1986 moodus/cellhd/
rw-r--r-- 63/30 216 Feb 24 13:24 1986 moodus/cellhd/moodus
rwxtwxtrwx 63/30 0 Feb 24 13:29 1986 moodus/stat/
rw-r--r-- 63/30 64 Feb 24 13:29 1986 moodus/stat/moodus
rwxtwxtrwx 63/30 0 Feb 24 13:29 1986 moodus/hist/
rw-r--r-- 63/30 230 Feb 24 13:26 1986 moodus/hist/moodus
rwxtwxtrwx 63/30 0 Feb 24 13:25 1986 moodus/colr/
rw-r--r-- 63/30 312 Feb 24 13:32 1986 moodus/colr/moodus
rwxt-xr-x 63/30 0 Feb 24 13:23 1986 moodus/pre_def/
rw-r--r-- 63/30 202 Feb 24 13:24 1986 moodus/pre_def/window_01

τω-τ--τ--	63/30	6 Feb 24 13:24 1986	moodus/pre_def/name_01
τωχτ-ιτ-χ	63/30	0 Feb 24 13:24 1986	moodus/COMBINE/
τωχτωχτωχ	63/30	0 Feb 18 10:24 1986	norwich/
τω-τω-τω-	63/30	202 Feb 18 10:23 1986	norwich/WIND
τω-τω-τω-	63/30	0 Feb 18 10:24 1986	norwich/STAT
τωχτωχτωχ	63/30	0 Feb 18 10:23 1986	norwich/cell/
τω-τ--τ--	63/30	59950 Feb 18 10:24 1986	norwich/cell/norwich
τωχτωχτωχ	63/30	0 Feb 18 12:07 1986	norwich/cats/
τω-τ--τ--	63/30	409 Feb 18 12:07 1986	norwich/cats/norwich
τωχτωχτωχ	63/30	0 Feb 18 10:23 1986	norwich/cellhd/
τω-τ--τ--	63/30	218 Feb 18 10:23 1986	norwich/cellhd/norwich
τωχτωχτωχ	63/30	0 Feb 18 10:24 1986	norwich/stat/
τω-τ--τ--	63/30	66 Feb 18 10:24 1986	norwich/stat/norwich
τωχτωχτωχ	63/30	0 Feb 18 10:24 1986	norwich/hist/
τω-τ--τ--	63/30	561 Feb 18 10:24 1986	norwich/hist/norwich
τωχτωχτωχ	63/30	0 Feb 18 12:07 1986	norwich/colr/
τω-τω-τω-	63/30	312 Feb 20 10:15 1986	norwich/colr/norwich
τωχτ-ιτ-χ	63/30	0 Feb 18 10:23 1986	norwich/pre_def/
τω-τ--τ--	63/30	202 Feb 18 10:22 1986	norwich/pre_def/window_01
τω-τ--τ--	63/30	7 Feb 18 10:23 1986	norwich/pre_def/name_01
τωχτ-ιτ-χ	63/30	0 Feb 18 10:23 1986	norwich/COMBINE/
τωχτωχτωχ	63/30	0 Feb 18 10:14 1986	oneco/
τω-τω-τω-	63/30	202 Feb 18 10:12 1986	oneco/WIND
τωχτωχτωχ	63/30	0 Feb 18 10:14 1986	oneco/STAT
τωχτωχτωχ	63/30	0 Feb 18 10:13 1986	oneco/cell/
τω-τ--τ--	63/30	57368 Feb 18 10:13 1986	oneco/cell/oneco
τωχτωχτωχ	63/30	0 Feb 18 12:07 1986	oneco/cats/
τω-τ--τ--	63/30	409 Feb 18 12:07 1986	oneco/cats/oneco
τωχτωχτωχ	63/30	0 Feb 18 10:13 1986	oneco/cellhd/
τω-τ--τ--	63/30	218 Feb 18 10:13 1986	oneco/cellhd/oneco
τωχτωχτωχ	63/30	0 Feb 18 10:13 1986	oneco/stat/
τω-τ--τ--	63/30	65 Feb 18 10:13 1986	oneco/stat/oneco
τωχτωχτωχ	63/30	0 Feb 18 10:13 1986	oneco/hist/
τω-τ--τ--	63/30	182 Feb 18 10:14 1986	oneco/hist/oneco
τωχτωχτωχ	63/30	0 Feb 18 12:07 1986	oneco/colr/
τω-τω-τω-	63/30	312 Feb 20 10:15 1986	oneco/colr/oneco
τωχτ-ιτ-χ	63/30	0 Feb 18 10:12 1986	oneco/pre_def/
τω-τ--τ--	63/30	202 Feb 18 10:12 1986	oneco/pre_def/window_01
τω-τ--τ--	63/30	5 Feb 18 10:12 1986	oneco/pre_def/name_01
τωχτ-ιτ-χ	63/30	0 Feb 18 10:12 1986	oneco/COMBINE/
τωχτωχτωχ	63/30	0 Feb 18 08:59 1986	oxford/
τω-τω-τω-	63/30	202 Feb 18 08:58 1986	oxford/WIND
τωχτωχτωχ	63/30	0 Feb 18 08:59 1986	oxford/STAT
τωχτωχτωχ	63/30	0 Feb 18 08:58 1986	oxford/cell/
τω-τ--τ--	63/30	25308 Feb 18 08:58 1986	oxford/cell/oxford
τωχτωχτωχ	63/30	0 Feb 18 12:07 1986	oxford/cats/
τω-τ--τ--	63/30	409 Feb 18 12:07 1986	oxford/cats/oxford
τωχτωχτωχ	63/30	0 Feb 18 08:58 1986	oxford/cellhd/
τω-τ--τ--	63/30	216 Feb 18 08:58 1986	oxford/cellhd/oxford
τωχτωχτωχ	63/30	0 Feb 18 08:58 1986	oxford/stat/
τω-τ--τ--	63/30	65 Feb 18 08:59 1986	oxford/stat/oxford
τωχτωχτωχ	63/30	0 Feb 18 08:59 1986	oxford/hist/
τω-τ--τ--	63/30	558 Feb 18 08:59 1986	oxford/hist/oxford
τωχτωχτωχ	63/30	0 Feb 18 12:07 1986	oxford/colr/
τω-τω-τω-	63/30	312 Feb 20 10:15 1986	oxford/colr/oxford
τωχτ-ιτ-χ	63/30	0 Feb 18 08:58 1986	oxford/pre_def/
τω-τ--τ--	63/30	202 Feb 18 08:58 1986	oxford/pre_def/window_01
τω-τ--τ--	63/30	6 Feb 18 08:58 1986	oxford/pre_def/name_01
τωχτ-ιτ-χ	63/30	0 Feb 18 08:58 1986	oxford/COMBINE/
τωχτωχτωχ	63/30	0 Feb 18 10:10 1986	plainfield/
τω-τω-τω-	63/30	202 Feb 18 10:05 1986	plainfield/WIND
τω-τω-τω-	63/30	0 Feb 18 10:10 1986	plainfield/STAT
τωχτωχτωχ	63/30	0 Feb 18 10:06 1986	plainfield/cell/
τω-τ--τ--	63/30	62700 Feb 18 10:07 1986	plainfield/cell/plainfield
τωχτωχτωχ	63/30	0 Feb 18 12:07 1986	plainfield/cats/
τω-τ--τ--	63/30	409 Feb 18 12:07 1986	plainfield/cats/plainfield

rwxtwxtwx	63/30	0 Feb 18 10:06 1986	plainfield/cellhd/
rw-t--t--	63/30	218 Feb 18 10:06 1986	plainfield/cellhd/plainfield
rwxtwxtwx	63/30	0 Feb 18 10:07 1986	plainfield/stat/
rw-t--t--	63/30	66 Feb 18 10:07 1986	plainfield/stat/plainfield
rwxtwxtwx	63/30	0 Feb 18 10:07 1986	plainfield/hist/
rw-t--t--	63/30	570 Feb 18 10:10 1986	plainfield/hist/plainfield
rwxtwxtwx	63/30	0 Feb 18 12:07 1986	plainfield/colr/
rw-tw-tw-	63/30	312 Feb 20 10:15 1986	plainfield/colr/plainfield
rwxt-t-t-x	63/30	0 Feb 18 10:05 1986	plainfield/pre_def/
rw-t--t--	63/30	202 Feb 18 10:05 1986	plainfield/pre_def/window_01
rw-t--t--	63/30	10 Feb 18 10:05 1986	plainfield/pre_def/name_01
rwxt-t-t-x	63/30	0 Feb 18 10:06 1986	plainfield/COMBINE/
rwxtwxtwx	63/30	0 Feb 18 09:29 1986	putnam/
rw-tw-tw-	63/30	202 Feb 18 09:27 1986	putnam/WIND
rw-tw-tw-	63/30	0 Feb 18 09:29 1986	putnam/STAT
rwxtwxtwx	63/30	0 Feb 18 09:28 1986	putnam/cell/
rw-t--t--	63/30	61912 Feb 18 09:28 1986	putnam/cell/putnam
rwxtwxtwx	63/30	0 Feb 18 12:07 1986	putnam/cats/
rw-t--t--	63/30	409 Feb 18 12:07 1986	putnam/cats/putnam
rwxtwxtwx	63/30	0 Feb 18 09:28 1986	putnam/cellhd/
rw-t--t--	63/30	217 Feb 18 09:28 1986	putnam/cellhd/putnam
rwxtwxtwx	63/30	0 Feb 18 09:28 1986	putnam/stat/
rw-t--t--	63/30	67 Feb 18 09:28 1986	putnam/stat/putnam
rwxtwxtwx	63/30	0 Feb 18 09:28 1986	putnam/hist/
rw-t--t--	63/30	558 Feb 18 09:29 1986	putnam/hist/putnam
rwxtwxtwx	63/30	0 Feb 18 12:07 1986	putnam/colr/
rw-tw-tw-	63/30	312 Feb 20 10:15 1986	putnam/colr/putnam
rwxt-t-t-x	63/30	0 Feb 18 09:27 1986	putnam/pre_def/
rw-t--t--	63/30	202 Feb 18 09:27 1986	putnam/pre_def/window_01
rw-t--t--	63/30	6 Feb 18 09:27 1986	putnam/pre_def/name_01
rwxt-t-t-x	63/30	0 Feb 18 09:27 1986	putnam/COMBINE/
rwxtwxtwx	63/30	0 Feb 24 13:18 1986	rockville/
rw-tw-tw-	63/30	202 Feb 24 13:16 1986	rockville/WIND
rw-tw-tw-	63/30	0 Feb 24 13:18 1986	rockville/STAT
rwxtwxtwx	63/30	0 Feb 24 13:17 1986	rockville/cell/
rw-t--t--	63/30	49980 Feb 24 13:17 1986	rockville/cell/rockville
rwxtwxtwx	63/30	0 Feb 24 13:17 1986	rockville/cats/
rw-t--t--	63/30	409 Feb 24 13:28 1986	rockville/cats/rockville
rwxtwxtwx	63/30	0 Feb 24 13:17 1986	rockville/cellhd/
rw-t--t--	63/30	215 Feb 24 13:17 1986	rockville/cellhd/rockville
rwxtwxtwx	63/30	0 Feb 24 13:17 1986	rockville/stat/
rw-t--t--	63/30	65 Feb 24 13:17 1986	rockville/stat/rockville
rwxtwxtwx	63/30	0 Feb 24 13:17 1986	rockville/hist/
rw-t--t--	63/30	209 Feb 24 13:18 1986	rockville/hist/rockville
rwxtwxtwx	63/30	0 Feb 24 13:17 1986	rockville/colr/
rw-t--t--	63/30	312 Feb 24 13:32 1986	rockville/colr/rockville
rwxt-t-t-x	63/30	0 Feb 24 13:16 1986	rockville/pre_def/
rw-t--t--	63/30	202 Feb 24 13:16 1986	rockville/pre_def/window_01
rw-t--t--	63/30	9 Feb 24 13:16 1986	rockville/pre_def/name_01
rwxt-t-t-x	63/30	0 Feb 24 13:16 1986	rockville/COMBINE/
rwxtwxtwx	63/30	0 Feb 18 10:04 1986	scotland/
rw-tw-tw-	63/30	202 Feb 18 10:02 1986	scotland/WIND
rw-tw-tw-	63/30	0 Feb 18 10:04 1986	scotland/STAT
rwxtwxtwx	63/30	0 Feb 18 10:03 1986	scotland/cell/
rw-t--t--	63/30	59202 Feb 18 10:03 1986	scotland/cell/scotland
rwxtwxtwx	63/30	0 Feb 18 12:07 1986	scotland/cats/
rw-t--t--	63/30	409 Feb 18 12:07 1986	scotland/cats/scotland
rwxtwxtwx	63/30	0 Feb 18 10:03 1986	scotland/cellhd/
rw-t--t--	63/30	217 Feb 18 10:03 1986	scotland/cellhd/scotland
rwxtwxtwx	63/30	0 Feb 18 10:03 1986	scotland/stat/
rw-t--t--	63/30	63 Feb 18 10:03 1986	scotland/stat/scotland
rwxtwxtwx	63/30	0 Feb 18 10:03 1986	scotland/hist/
rw-t--t--	63/30	564 Feb 18 10:04 1986	scotland/hist/scotland
rwxtwxtwx	63/30	0 Feb 18 12:07 1986	scotland/colr/
rw-tw-tw-	63/30	312 Feb 20 10:15 1986	scotland/colr/scotland
rwxt-t-t-x	63/30	0 Feb 18 10:02 1986	scotland/pre_def/

rw-r--r--	63/30	202 Feb 18 10:02 1986	scotland/pre_def/window_01
rw-r--r--	63/30	8 Feb 18 10:02 1986	scotland/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 18 10:02 1986	scotland/COMBINE/
rwxtawxtawx	63/30	0 Feb 18 08:53 1986	southbridge/
rw-rw-rw-	63/30	202 Feb 18 08:52 1986	southbridge/WIND
rw-rw-rw-	63/30	0 Feb 18 08:53 1986	southbridge/STAT
rwxtawxtawx	63/30	0 Feb 18 08:52 1986	southbridge/cell/
rw-r--r--	63/30	27776 Feb 18 08:53 1986	southbridge/cell/southbridge
rwxtawxtawx	63/30	0 Feb 18 12:07 1986	southbridge/cats/
rw-r--r--	63/30	409 Feb 18 12:07 1986	southbridge/cats/southbridge
rwxtawxtawx	63/30	0 Feb 18 08:52 1986	southbridge/cellhd/
rw-r--r--	63/30	215 Feb 18 08:52 1986	southbridge/cellhd/southbridge
rwxtawxtawx	63/30	0 Feb 18 08:53 1986	southbridge/stat/
rw-r--r--	63/30	63 Feb 18 08:53 1986	southbridge/stat/southbridge
rwxtawxtawx	63/30	0 Feb 18 08:53 1986	southbridge/hist/
rw-r--r--	63/30	573 Feb 18 08:53 1986	southbridge/hist/southbridge
rwxtawxtawx	63/30	0 Feb 18 12:07 1986	southbridge/color/
rw-rw-rw-	63/30	312 Feb 20 10:15 1986	southbridge/color/southbridge
rwxt-xr-x	63/30	0 Feb 18 08:52 1986	southbridge/pre_def/
rw-r--r--	63/30	202 Feb 18 08:52 1986	southbridge/pre_def/window_01
rw-r--r--	63/30	11 Feb 18 08:52 1986	southbridge/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 18 08:52 1986	southbridge/COMBINE/
rwxtawxtawx	63/30	0 Feb 18 09:40 1986	spring_hill/
rw-rw-rw-	63/30	202 Feb 18 09:37 1986	spring_hill/WIND
rw-rw-rw-	63/30	0 Feb 18 09:40 1986	spring_hill/STAT
rwxtawxtawx	63/30	0 Feb 18 09:38 1986	spring_hill/cell/
rw-r--r--	63/30	64184 Feb 18 09:39 1986	spring_hill/cell/spring_hill
rwxtawxtawx	63/30	0 Feb 18 12:07 1986	spring_hill/cats/
rw-r--r--	63/30	409 Feb 18 12:07 1986	spring_hill/cats/spring_hill
rwxtawxtawx	63/30	0 Feb 18 09:38 1986	spring_hill/cellhd/
rw-r--r--	63/30	217 Feb 18 09:38 1986	spring_hill/cellhd/spring_hill
rwxtawxtawx	63/30	0 Feb 18 09:39 1986	spring_hill/stat/
rw-r--r--	63/30	66 Feb 18 09:39 1986	spring_hill/stat/spring_hill
rwxtawxtawx	63/30	0 Feb 18 09:39 1986	spring_hill/hist/
rw-r--r--	63/30	573 Feb 18 09:40 1986	spring_hill/hist/spring_hill
rwxtawxtawx	63/30	0 Feb 18 12:07 1986	spring_hill/color/
rw-rw-rw-	63/30	312 Feb 20 10:15 1986	spring_hill/color/spring_hill
rwxt-xr-x	63/30	0 Feb 18 09:37 1986	spring_hill/pre_def/
rw-r--r--	63/30	202 Feb 18 09:37 1986	spring_hill/pre_def/window_01
rw-r--r--	63/30	11 Feb 18 09:37 1986	spring_hill/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 18 09:37 1986	spring_hill/COMBINE/
rwxtawxtawx	63/30	0 Feb 18 09:03 1986	stafford/
rw-rw-rw-	63/30	202 Feb 18 09:01 1986	stafford/WIND
rw-rw-rw-	63/30	0 Feb 18 09:03 1986	stafford/STAT
rwxtawxtawx	63/30	0 Feb 18 09:01 1986	stafford/cell/
rw-r--r--	63/30	60480 Feb 18 09:02 1986	stafford/cell/stafford
rwxtawxtawx	63/30	0 Feb 18 12:07 1986	stafford/cats/
rw-r--r--	63/30	409 Feb 18 12:07 1986	stafford/cats/stafford
rwxtawxtawx	63/30	0 Feb 18 09:01 1986	stafford/cellhd/
rw-r--r--	63/30	217 Feb 18 09:01 1986	stafford/cellhd/stafford
rwxtawxtawx	63/30	0 Feb 18 09:02 1986	stafford/stat/
rw-r--r--	63/30	65 Feb 18 09:02 1986	stafford/stat/stafford
rwxtawxtawx	63/30	0 Feb 18 09:02 1986	stafford/hist/
rw-r--r--	63/30	564 Feb 18 09:02 1986	stafford/hist/stafford
rwxtawxtawx	63/30	0 Feb 18 12:07 1986	stafford/color/
rw-rw-rw-	63/30	312 Feb 20 10:15 1986	stafford/color/stafford
rwxt-xr-x	63/30	0 Feb 18 09:01 1986	stafford/pre_def/
rw-r--r--	63/30	202 Feb 18 09:01 1986	stafford/pre_def/window_01
rw-r--r--	63/30	8 Feb 18 09:01 1986	stafford/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 18 09:01 1986	stafford/COMBINE/
rwxtawxtawx	63/30	0 Feb 18 09:32 1986	thompson/
rw-rw-rw-	63/30	202 Feb 18 09:31 1986	thompson/WIND
rw-rw-rw-	63/30	0 Feb 18 09:32 1986	thompson/STAT
rwxtawxtawx	63/30	0 Feb 18 09:31 1986	thompson/cell/
rw-r--r--	63/30	62348 Feb 18 09:32 1986	thompson/cell/thompson
rwxtawxtawx	63/30	0 Feb 18 12:07 1986	thompson/cats/

rw-r---r-- 63/30 409 Feb 18 12:07 1986 thompson/cats/thompson
rwxtawxtwx 63/30 0 Feb 18 09:31 1986 thompson/cellhd/
rw-r---r-- 63/30 218 Feb 18 09:31 1986 thompson/cellhd/thompson
rwxtawxtwx 63/30 0 Feb 18 09:32 1986 thompson/stat/
rw-r---r-- 63/30 63 Feb 18 09:32 1986 thompson/stat/thompson
rwxtawxtwx 63/30 0 Feb 18 09:32 1986 thompson/hist/
rw-r---r-- 63/30 564 Feb 18 09:32 1986 thompson/hist/thompson
rwxtawxtwx 63/30 0 Feb 18 12:07 1986 thompson/colr/
rw-rw-rw- 63/30 312 Feb 20 10:15 1986 thompson/colr/thompson
rwxt-xr-x 63/30 0 Feb 18 09:31 1986 thompson/pre_def/
rw-r---r-- 63/30 202 Feb 18 09:30 1986 thompson/pre_def/window_01
rw-r---r-- 63/30 8 Feb 18 09:31 1986 thompson/pre_def/name_01
rwxt-xr-x 63/30 0 Feb 18 09:31 1986 thompson/COMBINE/
rwxtawxtwx 63/30 0 Feb 18 14:39 1986 voluntown/
rw-rw-rw- 63/30 202 Feb 18 10:29 1986 voluntown/WIND
rw-rw-rw- 63/30 0 Feb 18 14:39 1986 voluntown/STAT
rwxtawxtwx 63/30 0 Feb 18 10:29 1986 voluntown/cell/
rw-r---r-- 63/30 55104 Feb 18 10:30 1986 voluntown/cell/voluntown
rwxtawxtwx 63/30 0 Feb 18 12:07 1986 voluntown/cats/
rw-r---r-- 63/30 409 Feb 18 12:07 1986 voluntown/cats/voluntown
rwxtawxtwx 63/30 0 Feb 18 10:29 1986 voluntown/cellhd/
rw-r---r-- 63/30 220 Feb 18 10:29 1986 voluntown/cellhd/voluntown
rwxtawxtwx 63/30 0 Feb 18 10:30 1986 voluntown/stat/
rw-r---r-- 63/30 66 Feb 18 10:30 1986 voluntown/stat/voluntown
rwxtawxtwx 63/30 0 Feb 18 10:30 1986 voluntown/hist/
rw-r---r-- 63/30 190 Feb 18 10:30 1986 voluntown/hist/voluntown
rwxtawxtwx 63/30 0 Feb 18 12:07 1986 voluntown/colr/
rw-rw-rw- 63/30 312 Feb 20 10:15 1986 voluntown/colr/voluntown
rwxt-xr-x 63/30 0 Feb 18 10:28 1986 voluntown/pre_def/
rw-r---r-- 63/30 202 Feb 18 10:28 1986 voluntown/pre_def/window_01
rw-r---r-- 63/30 9 Feb 18 10:28 1986 voluntown/pre_def/name_01
rwxt-xr-x 63/30 0 Feb 18 10:29 1986 voluntown/COMBINE/
rwxtawxtwx 63/30 0 Feb 18 08:37 1986 wales/
rw-rw-rw- 63/30 202 Feb 18 08:36 1986 wales/WIND
rw-rw-rw- 63/30 0 Feb 18 08:37 1986 wales/STAT
rwxtawxtwx 63/30 0 Feb 18 08:36 1986 wales/cell/
rw-r---r-- 63/30 29376 Feb 18 08:36 1986 wales/cell/wales
rwxtawxtwx 63/30 0 Feb 18 12:07 1986 wales/cats/
rw-r---r-- 63/30 409 Feb 18 12:07 1986 wales/cats/wales
rwxtawxtwx 63/30 0 Feb 18 08:36 1986 wales/cellhd/
rw-r---r-- 63/30 215 Feb 18 08:36 1986 wales/cellhd/wales
rwxtawxtwx 63/30 0 Feb 18 08:36 1986 wales/stat/
rw-r---r-- 63/30 64 Feb 18 08:36 1986 wales/stat/wales
rwxtawxtwx 63/30 0 Feb 18 08:36 1986 wales/hist/
rw-r---r-- 63/30 555 Feb 18 08:37 1986 wales/hist/wales
rwxtawxtwx 63/30 0 Feb 18 12:07 1986 wales/colr/
rw-rw-rw- 63/30 312 Feb 20 10:15 1986 wales/colr/wales
rwxt-xr-x 63/30 0 Feb 18 08:35 1986 wales/pre_def/
rw-r---r-- 63/30 202 Feb 18 08:35 1986 wales/pre_def/window_01
rw-r---r-- 63/30 9 Feb 18 08:35 1986 wales/pre_def/name_01
rwxt-xr-x 63/30 0 Feb 18 08:36 1986 wales/COMBINE/
rwxtawxtwx 63/30 0 Feb 18 08:36 1986 webster/
rw-rw-rw- 63/30 202 Feb 18 08:55 1986 webster/WIND
rw-rw-rw- 63/30 0 Feb 18 08:56 1986 webster/STAT
rwxtawxtwx 63/30 0 Feb 18 08:55 1986 webster/cell/
rw-r---r-- 63/30 26596 Feb 18 08:55 1986 webster/cell/webster
rwxtawxtwx 63/30 0 Feb 18 12:07 1986 webster/cats/
rw-r---r-- 63/30 409 Feb 18 12:07 1986 webster/cats/webster
rwxtawxtwx 63/30 0 Feb 18 08:55 1986 webster/cellhd/
rw-r---r-- 63/30 215 Feb 18 08:55 1986 webster/cellhd/webster
rwxtawxtwx 63/30 0 Feb 18 08:55 1986 webster/stat/
rw-r---r-- 63/30 63 Feb 18 08:55 1986 webster/stat/webster
rwxtawxtwx 63/30 0 Feb 18 08:55 1986 webster/hist/
rw-r---r-- 63/30 561 Feb 18 08:56 1986 webster/hist/webster
rwxtawxtwx 63/30 0 Feb 18 12:07 1986 webster/colr/
rw-rw-rw- 63/30 312 Feb 20 10:15 1986 webster/colr/webster

rwxt-xr-x	63/30	0 Feb 18 08:54 1986	webster/pre_def/
rw-r--r--	63/30	202 Feb 18 08:54 1986	webster/pre_def/window_01
rw-r--r--	63/30	7 Feb 18 08:54 1986	webster/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 18 08:55 1986	webster/COMBINE/
rwxtwxrwx	63/30	0 Feb 18 09:10 1986	westford/
rw-rw-rw-	63/30	202 Feb 18 09:04 1986	westford/WIND
rw-rw-rw-	63/30	0 Feb 18 09:10 1986	westford/STAT
rwxtwxrwx	63/30	0 Feb 18 09:05 1986	westford/cell/
rw-r--r--	63/30	61344 Feb 18 09:05 1986	westford/cell/westford
rwxtwxrwx	63/30	0 Feb 18 12:07 1986	westford/cats/
rw-r--r--	63/30	409 Feb 18 12:07 1986	westford/cats/westford
rwxtwxrwx	63/30	0 Feb 18 09:05 1986	westford/cellhd/
rw-r--r--	63/30	217 Feb 18 09:05 1986	westford/cellhd/westford
rwxtwxrwx	63/30	0 Feb 18 09:05 1986	westford/stat/
rw-r--r--	63/30	64 Feb 18 09:05 1986	westford/stat/westford
rwxtwxrwx	63/30	0 Feb 18 09:05 1986	westford/hist/
rw-r--r--	63/30	564 Feb 18 09:07 1986	westford/hist/westford
rwxtwxrwx	63/30	0 Feb 18 12:07 1986	westford/colr/
rw-rw-rw-	63/30	312 Feb 20 10:15 1986	westford/colr/westford
rwxt-xr-x	63/30	0 Feb 18 09:04 1986	westford/pre_def/
rw-r--r--	63/30	202 Feb 18 09:04 1986	westford/pre_def/window_01
rw-r--r--	63/30	8 Feb 18 09:04 1986	westford/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 18 09:04 1986	westford/COMBINE/
rwxtwxrwx	63/30	0 Feb 18 10:01 1986	willimantic/
rw-rw-rw-	63/30	202 Feb 18 09:58 1986	willimantic/WIND
rw-rw-rw-	63/30	0 Feb 18 10:01 1986	willimantic/STAT
rwxtwxrwx	63/30	0 Feb 18 09:59 1986	willimantic/cell/
rw-r--r--	63/30	61628 Feb 18 10:00 1986	willimantic/cell/willimantic
rwxtwxrwx	63/30	0 Feb 18 12:07 1986	willimantic/cats/
rw-r--r--	63/30	409 Feb 18 12:07 1986	willimantic/cats/willimantic
rwxtwxrwx	63/30	0 Feb 18 09:59 1986	willimantic/cellhd/
rw-r--r--	63/30	217 Feb 18 09:59 1986	willimantic/cellhd/willimantic
rwxtwxrwx	63/30	0 Feb 18 10:00 1986	willimantic/stat/
rw-r--r--	63/30	64 Feb 18 10:00 1986	willimantic/stat/willimantic
rwxtwxrwx	63/30	0 Feb 18 10:00 1986	willimantic/hist/
rw-r--r--	63/30	573 Feb 18 10:01 1986	willimantic/hist/willimantic
rwxtwxrwx	63/30	0 Feb 18 12:07 1986	willimantic/colr/
rw-rw-rw-	63/30	312 Feb 20 10:15 1986	willimantic/colr/willimantic
rwxt-xr-x	63/30	0 Feb 18 09:58 1986	willimantic/pre_def/
rw-r--r--	63/30	202 Feb 18 09:58 1986	willimantic/pre_def/window_01
rw-r--r--	63/30	11 Feb 18 09:58 1986	willimantic/pre_def/name_01
rwxt-xr-x	63/30	0 Feb 18 09:58 1986	willimantic/COMBINE/

Agricultural Signature

number of bands

3

sample size

51

histogram, band 1

0
0
0 0 5 6 9 10 9 3 2 2 1 1 0 1 0
0
0
0
histogram, band 2

0
0
0
0
0
histogram, band 3

0
0
0
0
0
minimums

106

35

78

maximums

117

44

109

sums

5575.000000

1988.000000

4837.000000

variance products

609701.000000

217487.000000 77782.000000

528440.000000 188723.000000 460921.000000

Barren Lands Signature

number of bands

3

sample size

55

histogram, band 1

0
0
0 0 0 0 0 0 0 2 3 1 1 4 2 1 1 3 3 4 3 1 1 0 2 4 2 3 0 0 1 2 3 3 1 0 0 1 0 1 0 0 0 0 0 0 0 0 0
0
0
histogram, band 2

0
1 0 0 3 1 1 3 5 2 2 0 2 1 1 2 1 0 3 1 0 1 2 0 2 0 0 0 0 1 2 0 0 2 2 1 1 1 0 0 0 0 1 1 0 0 0 0 0 0 0
0
0
0
histogram, band 3

0
0
0
0
0
minimums

112

0
0
minimums
102
29
5
maximums
110
35
41
sums
61072.000000
17911.000000
3361.000000
variance products
6487716.000000
1902415.000000 558263.000000
590761.000000 173544.000000 37609.000000